



# STIC Search Report

## EIC 3700

STIC Database Tracking Number: 120874

**TO: Andrea Ragonese**  
**Location: pk1 11e50**  
**Art Unit: 3743**

**Case Serial Number: 10/613860**

**From: Jeanne Horrigan**  
**Location: EIC 3700**  
**CP2-2C08**  
**Phone: 305-5934**

**[jeanne.horrigan@uspto.gov](mailto:jeanne.horrigan@uspto.gov)**

### Search Notes

Attached are the search results for the chest tube search, including prior art searches in foreign and international patent databases; and medical and and general sci/tech non-patent literature databases.

Although I tagged the items that I thought were most relevant, I recommend that you review all of the results.

Also attached is a search feedback form. Completion of the form is voluntary. Your completing this form would help us improve our search services.

I hope the attached information is useful. Please feel free to contact me (phone 305-5934 or email [jeanne.horrigan@uspto.gov](mailto:jeanne.horrigan@uspto.gov)) if you have any questions or need additional searching on this application.

**Solomon, Terrance**

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From: Unknown@Unknown.com  
Sent: Friday, April 30, 2004 4:00 PM  
To: STIC-EIC3700  
Subject: Generic form response

ResponseHeader=Commercial Database Search Request

AccessDB#= ~~120873~~ + 120874

LogNumber=

Searcher=

SearcherPhone= 305-5934

SearcherBranch= EIC 3700

APR 30 2004

MyDate=Fri Apr 30 15:59:50 GMT-0400 (Eastern Daylight Time) 2004

submitto=STIC-EIC3700@uspto.gov

Name=Andrea Ragonese

Empno=77465

Phone=703-306-4055

Artunit=3743

Office=PK1 - 11E50

Serialnum=10613860 / ~~10613860~~

PatClass=128/205.12 / 128/200.24

Earliest=7/3/2003

Format3=email

Searchtopic=Chest Tube

Thoracic

Emphysematous hyperinflated lungs

Oxygen Tube through Viscera of Lung / Implanable in Lung

Tracheotomy Tube

Emergency Cricothyroidotomies

Transtracheal catheter

Comments=

send=SEND

cricothyroidotomy  
cricotomy  
cricotracheotomy  
~~cricothyroid~~

Inventor =  
Don Tanaka - CA

File 155:MEDLINE(R) 1966-2004/Apr W4  
 File 5:Biosis Previews(R) 1969-2004/Apr W4  
 File 73:EMBASE 1974-2004/Apr W4  
 File 34:SciSearch(R) Cited Ref Sci 1990-2004/Apr W4  
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
 File 144:Pascal 1973-2004/Apr W4  
 File 2:INSPEC 1969-2004/Apr W4  
 File 6:NTIS 1964-2004/May W1  
 File 8:Ei Compendex(R) 1970-2004/Apr W3  
 File 94:JICST-EPlus 1985-2004/Apr W2  
 File 95:TEME-Technology & Management 1989-2004/Apr W2  
 File 99:Wilson Appl. Sci & Tech Abs 1983-2004/Mar  
 File 65:Inside Conferences 1993-2004/Apr W4  
 File 35:Dissertation Abs Online 1861-2004/Apr

Set	Items	Description
S1	3927650	TUBE OR TUBES OR TUBING OR CONDUIT? ? OR TUBUL? OR CATHETE- R? ? OR PIPET??? OR DUCT? ? OR CANNULA? ? OR CHANNEL? ? OR PI- PE OR PIPES OR PIPING
S2	408837	TRAP OR TRAPS OR CONTAINER? ? OR (CONTAINMENT OR DRAINAGE) - ( ) (VESSEL? ? OR DEVICE? ?)
S3	1550284	FILTER? ? OR FILTRATION OR VALVE? ?
S4	2168788	CHEST OR THORACIC OR LUNG
S5	1299712	VISCERAL OR WALL OR WALLS
S6	68156	(PULMONARY OR LUNG OR OXYGEN OR O2) (1W) THERAPY
S7	33974	ATELECTASIS OR MIDDLE( ) LOBE( ) SYNDROME OR BRONCHIECTASIS OR TRAPPED( ) AIR (2N) LUNG? ?
S8	50	DRAINAGE( ) COLLECTION
S9	2240579	OXYGEN OR O2
S10	52006	IMPLANTABLE
S11	430049	COLLATERAL( ) VENTILATION OR AIRWAY( ) RESISTANCE OR EMPHYSEMA? OR HYPERINFLAT??? (2N) LUNG? ? OR CRICOTHYROID? OR HYPOXIA OR - HYPOXEMI? ? OR HYPOXAEMI? ? OR COPD OR CHRONIC( ) OBSTRUCTIVE( ) - PULMONARY( ) DISEASE OR CHRONIC( ) LUNG( ) DISEASE OR CHRON...
S12	1573	S1 AND S2 AND S3
S13	5	S1 AND S8 AND S3
S14	1578	S12:S13
S15	7	S14 AND S4(S) S5
S16	3	RD (unique items)
S17	67	S14 AND (S6 OR S9)
S18	0	S17 AND (S7 OR S11)
S19	2	S14 AND (S7 OR S11) [not relevant]
S20	1	S10 AND S17 [not relevant]
S21	6	S17 AND S4:S5
S22	5	S21 NOT (S16 OR S19 OR S20)
S23	5	RD (unique items) [not relevant]
S24	61	S17 NOT (S16 OR S19 OR S20 OR S21)
S25	56	RD (unique items)
S26	1461402	S6/TI,DE OR S9/TI,DE
S27	42	S25 AND S26
S28	42	Sort S27/ALL/PY,A [not relevant]
S29	14	S25 NOT S27
S30	14	Sort S29/ALL/PY,A
S31	29763	S1 AND (S7 OR S11)
S32	750	S31 AND S4 AND S5
S33	283	S4 (5N) S5 AND S31
S34	19	S6 AND S33

Serial 10/613860

May 3, 2004

S35 19 S34 NOT (S16 OR S19 OR S20 OR S21 OR S17)  
 S36 12 RD (unique items)  
 S37 12 Sort S36/ALL/PY,A  
 S38 150 (S7/TI,DE OR S11/TI,DE) AND S33  
 S39 32 S38 AND S9  
 S40 22 S39 NOT (S16 OR S17 OR S19:S21 OR S34)  
 S41 16 RD (unique items)  
 S42 16 Sort S41/ALL/PY,A  
 S43 2 S14 AND S6  
 S44 330 S10()S1  
 S45 0 S17 AND S44  
 S46 0 S14 AND S44  
 S47 26942 COLLATERAL()VENTILATION OR AIRWAY()RESISTANCE  
 S48 0 S47/TI,DE AND S14  
 S49 1 S47 AND S14 [not relevant]

16/7/3 (Item 3 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

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12013954 PMID: 12234043

. Performance of advanced trauma life support procedures in microgravity.

Campbell Mark R; Billica Roger D; Johnston Smith L; Muller Matthew S  
 NASA Medical Operations, Johnson Space Center and Wyle Laboratories,  
 Houston, TX, USA. mcamp@1starnet.com

Aviation, space, and environmental medicine (United States) Sep 2002,

73 (9) p907-12, ISSN 0095-6562 Journal Code: 7501714

Document type: Evaluation Studies; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

BACKGROUND: Medical operations on the International Space Station will emphasize the stabilization and transport of critically injured personnel and so will need to be capable of advanced trauma life support (ATLS). METHODS: We evaluated the ATLS invasive procedures in the microgravity environment of parabolic flight using a porcine animal model. Included in the procedures evaluated were artificial ventilation, intravenous infusion, laceration closure, tracheostomy, Foley catheter drainage, chest tube insertion, peritoneal lavage, and the use of telemedicine methods for procedural direction. RESULTS: Artificial ventilation was performed and appeared to be unaltered from the 1-G environment. Intravenous infusion, laceration closure, percutaneous dilational tracheostomy, and Foley catheter drainage were achieved without difficulty. Chest tube insertion and drainage were performed with no more difficulty than in the 1-G environment due to the ability to restrain patient, operator and supplies. A Heimlich valve and Sorenson drainage system were both used to provide for chest tube drainage collection with minimal equipment, without the risk of atmospheric contamination, and with the capability to auto-transfuse blood drained from a hemothorax. The use of telemedicine in chest tube insertion was demonstrated to be useful and feasible. Peritoneal lavage using a percutaneous technique, although requiring less training to perform, was found to be dangerous in weightlessness due to the additional pressure of the bowel on the anterior abdominal wall creating a high risk of bowel perforation. CONCLUSIONS: The performance of ATLS procedures in microgravity appears to be feasible with the exception of diagnostic peritoneal lavage. Minor modifications to equipment and techniques are required in microgravity to effect surgical drainage in the

presence of altered fluid dynamics, to prevent atmospheric contamination, and to provide for the restraint requirements. A parabolic simulation system was developed for equipment and procedure verification, physiological research, and possible crew medical officer training in the future.

Record Date Created: 20020917

Record Date Completed: 20030131

30/6/5 (Item 5 from file: 94)

00534876 JICST ACCESSION NUMBER: 88A0061827 FILE SEGMENT: JICST-E

Research and development of vacuum system for SSC., 1987

37/6/8 (Item 8 from file: 73)

10669909 EMBASE No: 2000153040

Mechanical ventilation

2000

37/6/9 (Item 9 from file: 5)

0012718017 BIOSIS NO.: 200000436330

Approach to the patient in respiratory distress

2000

37/6/11 (Item 11 from file: 155)

10751741 PMID: 10872135

Sleep-related breathing disorders following discharge from intensive care.

Apr 2000

37/6/12 (Item 12 from file: 73)

12383638 EMBASE No: 2003508981

Acinar Arterial Changes with Chronic Lung Disease of Prematurity in the Surfactant Era

2003

37/9/1 (Item 1 from file: 155)

DIALOG(R) File 155: MEDLINE(R)

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05058917 PMID: 452276

[Transbronchial transthoracic sanitation of chronic suppurative foci in the lungs]

Chrezbronkhial'naia transtorakal'naia sanatsiia khronicheskikh gnoinykh ochagov v legkikh.

Pleshakov V T; Kartavenko A I; Vorontsov S A; Shalaev S A; Kostin E D

Vestnik khirurgii imeni I. I. Grekova (USSR) May 1979, 122 (5) p7-11

, ISSN 0042-4625 Journal Code: 0411377

Document type: Case Reports; Journal Article ; English Abstract

Languages: RUSSIAN

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

A new method of bronchial sanitation consisting in conducting a polyurethane tube through the pulmonary tissue and thoracic wall outward under the bronchoscopy control is suggested. The method has been used successfully in 22 patients.

Tags: Female; Human

Descriptors: Bronchiectasis --therapy--TH; \*Drainage--methods--MT; \*Irrigation--methods--MT; \* Lung Abscess-- therapy --TH; \*Pneumonia --therapy--TH; Adult; Bronchi; Bronchoscopes; Drainage--instrumentation--IS

; Irrigation--instrumentation--IS; Thorax  
Record Date Created: 19790816  
Record Date Completed: 19790816

37/9/4 (Item 4 from file: 5)  
DIALOG(R) File 5: Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.  
0008990599 BIOSIS NO.: 199497011884

**The effects of transtracheal gas delivery on central inspiratory neuromuscular drive**

AUTHOR: Scott Graham C; Hinson James M; Scott Riley P; Quigley Patrick R; Christopher Kent L; Metzler Michael

AUTHOR ADDRESS: Div. Pulm., Critical Care Environ. Med., Dep. Surgery,  
Univ. Missouri-Columbia, Inst. Transtracheal Oxygen Ther., Denver, CO,  
USA\*\*USA

JOURNAL: Chest 104 (4): p1199-1202 1993 1993

ISSN: 0012-3692

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Previous studies have shown transtracheal delivery of low-flow oxygen (TTO) decreases inspired minute ventilation (VE<sub>insp</sub>) and have postulated that this would result in a decrease in the work of breathing (WOB). We hypothesized that a fall in central inspiratory neuromuscular drive (CIND) with TTO would reflect a fall in WOB. We measured resting ventilatory parameters (RVP) and CIND by the mouth occlusion pressure technique (MOP) at different gas flow rates through the **catheter** in 21 subjects (13 men, 8 women; mean age, 60 ± 10.6 years) with severe **COPD** with a mature intratracheal oxygen **catheter** (ITOC). We also constructed a **lung / chest wall** analog (LCA) to determine if flow through the **catheter** would alter pressure changes during inspiration. Inspiratory tidal volume (V-T<sub>insp</sub>) and minute ventilation (V-E<sub>insp</sub>) decreased proportionally to the gas flow rate through the **catheter**. However, with increasing flow through the **catheter**, P<sub>0.1</sub> increased in the LCA, presumably due to the Bernoulli effect. The lack of a similar change in the subject group suggests that CIND does, in fact, fall, and that possibly there is a decrease in WOB. This effect may be of benefit to patients with severe **COPD**.

REGISTRY NUMBERS: 7782-44-7: OXYGEN

DESCRIPTORS:

MAJOR CONCEPTS: Metabolism; Muscular System--Movement and Support;  
Nervous System--Neural Coordination; Pulmonary Medicine--Human  
Medicine, Medical Sciences; Respiratory System--Respiration

BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata,  
Animalia

ORGANISMS: human (Hominidae)

COMMON TAXONOMIC TERMS: Animals; Chordates; Humans; Mammals; Primates;  
Vertebrates

CHEMICALS & BIOCHEMICALS: OXYGEN

MISCELLANEOUS TERMS: **CHRONIC OBSTRUCTIVE PULMONARY DISEASE ;**  
**OXYGEN THERAPY ; WORK OF BREATHING REDUCTION**

CONCEPT CODES:

10012 Biochemistry - Gases

12512 Pathology - Therapy

13003 Metabolism - Energy and respiratory metabolism

16001 Respiratory system - General and methods

16004 Respiratory system - Physiology and biochemistry  
16006 Respiratory system - Pathology  
17504 Muscle - Physiology and biochemistry  
20504 Nervous system - Physiology and biochemistry  
22100 Routes of immunization, infection and therapy

## BIOSYSTEMATIC CODES:

86215 Hominidae

37/9/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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12874763 PMID: 8537988

**Incentive spirometry for tracheostomy and laryngectomy patients.**

Tan A K

Jewish General Hospital, McGill University Faculty of Medicine, Montreal, Quebec.

Journal of otolaryngology (CANADA) Oct 1995, 24 (5) p292-4, ISSN 0381-6605 Journal Code: 7610513

Document type: Clinical Trial; Journal Article; Randomized Controlled Trial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Sustained maximal inspiration (incentive spirometry) is used for the prevention and management of **atelectasis** in major abdominal and thoracic surgery. Patients with head and neck surgery are predisposed to postoperative disturbances in lung function after extensive surgical resection, immobilization, or significant **chest wall** deformity from various reconstructive procedures. The patient often requires tracheostomy or permanent laryngeal stoma. A prospective clinical study on patients with major head and neck surgery was conducted to evaluate the use of incentive spirometry to improve postoperative lung function. An adaptor was first designed to allow patients with tracheostomy **tubes** to use the spirometers. Parameters studied include vital signs, arterial blood gases (A-a gradient), and pulmonary function test. Significant improvement of lung function and lack of complication warrant the use of incentive spirometry in postoperative head and neck surgery patients.

Tags: Female; Human; Male

Descriptors: \*Breathing Exercises; \*Laryngectomy--rehabilitation--RH; \*Spirometry; \*Tracheostomy--rehabilitation--RH; Abdomen--surgery--SU; Aged; **Atelectasis** --prevention and control--PC; **Atelectasis** --therapy--TH; Equipment Design; Heart Rate; Inhalation; Laryngectomy--instrumentation--IS; Lung--physiopathology--PP; Lung Diseases--prevention and control--PC; Lung Diseases-- **therapy** --TH; Otorhinolaryngologic Diseases--surgery--SU; Oxygen--blood--BL; Postoperative Complications; Prospective Studies; Respiration; Spirometry--instrumentation--IS; Thoracic Surgery --rehabilitation--RH; Tracheostomy--instrumentation--IS; Vital Capacity

CAS Registry No.: 7782-44-7 (Oxygen)

Record Date Created: 19960208

Record Date Completed: 19960208

37/9/6 (Item 6 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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13691501 PMID: 9390881

**Long-term noninvasive ventilation for patients with thoracic cage abnormalities.**

Leger P

Association Lyonnaise contra la Poliomyelie, Home Respiratory Care Organization, Croix Rousse Hospital, Lyon, France.

Respiratory care clinics of North America (UNITED STATES) Jun 1996, 2 (2) p241-52, ISSN 1078-5337 Journal Code: 9612026

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Long-term noninvasive ventilation offers the patient with thoracovertebral deformities, including deformities that result from the severe skeletal and chest-wall sequelae of tuberculosis, what long-term oxygen therapy has offered patients with chronic obstructive pulmonary disease: improved survival and prevention or alleviation of cor pulmonale. Long-term noninvasive intermittent positive pressure ventilation, particularly nocturnal use, has little inconvenience, because ventilation during the night often suffices. Major advantages include correction of hypoventilation during autonomous breathing time that is usually sufficient to permit patients to resume their activities of daily living without need for ventilatory assistance during the day and efficacy comparable to that of intermittent positive pressure ventilation via an indwelling tracheostomy tube, without the inconveniences (tracheostomy is always available if necessary). (36 Refs.)

Tags: Human

Descriptors: \*Hypoventilation--therapy--TH; \*Lung Diseases, Obstructive--therapy--TH; \*Respiration, Artificial--methods--MT; \*Spinal Diseases--therapy--TH; \*Thoracic Vertebrae; Hypoventilation--etiology--ET; Hypoventilation--physiopathology--PP; Lung Diseases, Obstructive--etiology--ET; Lung Diseases, Obstructive--physiopathology--PP; Postoperative Complications; Respiration, Artificial--instrumentation--IS; Scoliosis--complications--CO; Scoliosis--congenital--CN; Spinal Diseases--complications--CO; Spinal Diseases--etiology--ET; Tuberculosis--complications--CO; Tuberculosis--surgery--SU

Record Date Created: 19971223

Record Date Completed: 19971223

37/9/7 (Item 7 from file: 73)

DIALOG(R) File 73:EMBASE

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07662374 EMBASE No: 1999150620

**Continuous flow apnoeic ventilation via intratracheal oxygen insufflation**  
APNOISCHE VENTILATION INFOLGE INTRATRACHEALER Oinf 2-INSUFFLATION ALS  
PROBATE INTERVENTION BEI SCHWERGRADIGER COPD

Osseiran K.; Schonhofer B.; Kohler D.

Dr. K. Osseiran, Krankenhaus Kloster Grafschaft, Ztr. Pneumol.

Beatmungs/Schlafmed., Annostr. 1, D-57392 Schmallenberg-Grafschaft  
Germany

Medizinische Klinik ( MED. KLIN. ) (Germany) 15 APR 1999, 94/SPEC. ISS.  
1 (55-57)

CODEN: MEKLA ISSN: 0723-5003

DOCUMENT TYPE: Journal; Conference Paper

LANGUAGE: GERMAN SUMMARY LANGUAGE: ENGLISH; GERMAN

NUMBER OF REFERENCES: 12



Background: In patients with disturbed gas-exchange (e. g. COPD ) intratracheal oxygen insufflation (ITOinf 2) improves oxygenation and reduces the minute ventilation. We use a bronchoscopic technique of intratracheal catheter placement in unintubated patients. In a patient with a pink-puffer emphysema after endoscopical insertion of the catheter ITOinf 2 induced a 'continuous flow apnoeic ventilation' (CFAV). Case Report: A patient (female, 58 years) with a pink-puffer emphysema was admitted to the ICU with acute on chronic respiratory failure due to acute laryngitis. Because of laryngitis associated upper airway obstruction a non-invasive mechanical ventilation could not be performed. The ensuing high flow ITOinf 2 (10 l/min) induced a CFAV characterized by no chest wall movement and adequate ventilation as reflected by stable, elevated PaCOinf 2 (between 118 and 125 mm Hg), which could be maintained for 4 hours. After an ensuing short-term invasive mechanical ventilation and the administration of high dose glucocorticoids the patient was successfully extubated and the clinical status improved continuously. Conclusion: In a patient with an acute on chronic respiratory failure due to end-stage emphysema ITOinf 2 induced CFAV and stabilized the clinical status. Especially in patients with end-stage emphysema, who are likely to be difficult to be weaned from the respirator ITOinf 2 may be a feasible technique in order to bridge an emergency situation.

MEDICAL DESCRIPTORS:

\*chronic obstructive lung disease--diagnosis--di; \*chronic obstructive lung disease-- therapy --th; \* oxygen therapy lung gas exchange; bronchoscopy; catheterization; emphysema --diagnosis --di; emphysema --therapy--th; forced expiratory volume; human; female; case report; human tissue; human cell; adult; conference paper

SECTION HEADINGS:

009 Surgery  
015 Chest Diseases, Thoracic Surgery and Tuberculosis  
024 Anesthesiology

42/6/1 (Item 1 from file: 6)

1278375 NTIS Accession Number: AD-A955 147/4

Effect of Hypoxia on the Pulmonary Microcirculation

(Rept. no. 1 (Annual) 1 Oct 67-30 sep 68)

30 Sep 68

42/6/2 (Item 2 from file: 73)

01032284 EMBASE No: 1978160622

Collateral ventilation

1977

42/6/9 (Item 9 from file: 73)

06912105 EMBASE No: 1997196547

No-cut thoracoscopic lung plication: A new technique for lung volume reduction surgery

1997

42/6/14 (Item 14 from file: 144)

16011565 PASCAL No.: 03-0157218

Pneumomediastinum and subcutaneous emphysema during carbon dioxide laser laparoscopy for tuboplasty

2002

42/6/16 (Item 16 from file: 155)

ASRC Searcher: Jeanne Horrigan  
Serial 10/613860  
May 3, 2004

8

12320127 PMID: 12682483

Alveolar inflation during generation of a quasi-static pressure/volume  
curve in the acutely injured lung.

Apr 2003

43/6/1 (Item 1 from file: 155)

04596949 PMID: 897194

A vena cava filter using thermal shape memory alloy. Experimental  
aspects.

Oct 1977

43/6/2 (Item 1 from file: 73)

10586054 EMBASE No: 2000051296

Vena cava filters : Expanding indications and practices  
2000

Serial 10/613860

May 3, 2004

File 98:General Sci Abs/Full-Text 1984-2004/Apr  
 File 9:Business & Industry(R) Jul/1994-2004/Apr 30  
 File 16:Gale Group PROMT(R) 1990-2004/May 03  
 File 160:Gale Group PROMT(R) 1972-1989  
 File 148:Gale Group Trade & Industry DB 1976-2004/May 03  
 File 621:Gale Group New Prod. Annou. (R) 1985-2004/Apr 30  
 File 149:TGG Health&Wellness DB(SM) 1976-2004/Apr W4  
 File 441:ESPICOM Pharm&Med DEVICE NEWS 2004/Apr W4  
 File 636:Gale Group Newsletter DB(TM) 1987-2004/May 03  
 File 369:New Scientist 1994-2004/Apr W4  
 File 370:Science 1996-1999/Jul W3

Set	Items	Description
S1	2243376	TUBE OR TUBES OR TUBING OR CONDUIT? ? OR TUBUL? OR CATHETE- R? ? OR PIPET??? OR DUCT? ? OR CANNULA? ? OR CHANNEL? ? OR PI- PE OR PIPES OR PIPING
S2	471420	TRAP OR TRAPS OR CONTAINER? ? OR (CONTAINMENT OR DRAINAGE) - ( ) (VESSEL? ? OR DEVICE? ?)
S3	436240	FILTER? ? OR FILTRATION OR VALVE? ?
S4	204251	CHEST OR THORACIC OR LUNG
S5	875444	VISCERAL OR WALL OR WALLS
S6	3262	(PULMONARY OR LUNG OR OXYGEN OR O2) (1W) THERAPY
S7	3007	ATELECTASIS OR MIDDLE ( ) LOBE ( ) SYNDROME OR BRONCHIECTASIS OR TRAPPED ( ) AIR (2N) LUNG? ?
S8	38	DRAINAGE ( ) COLLECTION
S9	174024	OXYGEN OR O2
S10	20692	IMPLANTABLE
S11	32542	COLLATERAL ( ) VENTILATION OR AIRWAY ( ) RESISTANCE OR EMPHYSEMA? OR HYPERINFLAT??? (2N) LUNG? ? OR CRICOTHYROID? OR HYPOXIA OR - HYPOXEMI? ? OR HYPOXAEMI? ? OR COPD OR CHRONIC ( ) OBSTRUCTIVE ( ) - PULMONARY ( ) DISEASE OR CHRONIC ( ) LUNG ( ) DISEASE OR CHRON...
S12	1085	S1 (S) (S2 OR S8) (S) S3
S13	11	S4 (S) S12
S14	0	S6 (S) S12
S15	0	S6/TI, DE AND S12
S16	26	S9 (S) S12
S17	0	(S7 OR S11) (S) S12
S18	35	S13 OR S16
S19	33	RD (unique items)
S20	33	Sort S19/ALL/PD,A

20/3,AB,K/19 (Item 19 from file: 149)

DIALOG(R) File 149:TGG Health&amp;Wellness DB(SM)

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01721688 SUPPLIER NUMBER: 19831803 (USE FORMAT 7 OR 9 FOR FULL TEXT)

**Treatment of spontaneous pneumothorax: a more aggressive approach?**

Baumann, Michael H.; Strange, Charlie

Chest, v112, n3, p789(16)

Sep, 1997

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0012-3692

LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional

WORD COUNT: 11896 LINE COUNT: 01003

... What drainage device, if any, should be attached to the chest tube?

Once placed, a chest tube is usually connected to a drainage device if the lung fails to reexpand or an air leak persists. The same resistance considerations in choosing chest tube size need to be applied to the connecting tubing and the drainage device.

(52,53,61,62) Four **drainage devices** in common use were reviewed in 1985 and 1988 regarding their accommodation of various air...  
...of suction from -20 to -40 cm (H.sub.2)O did not significantly vary **chest tube** air flow. (53) Improper alignment of any **valve** system can also cause increased resistance. (63)

Should suction be applied to the chest tube...

20/3,AB,K/30 (Item 30 from file: 149)  
DIALOG(R)File 149:TGG Health&Wellness DB(SM)  
(c) 2004 The Gale Group. All rts. reserv.  
02078551 SUPPLIER NUMBER: 86052469 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
A guide to mobile chest drains: mobile chest drains allow patients to move independently--reducing the complications of immobility--and head home sooner. Here are four such devices and tips on managing the patients who have them.

Carroll, Patricia  
RN, 65, 5, 56(6)  
May, 2002

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0033-7021  
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional  
WORD COUNT: 2848 LINE COUNT: 00224  
... the device is taped to the chest, to reduce the risk of dislodgement.

The Heimlich **valve** is convenient to use because it attaches to a standard **chest tube** that would otherwise be connected to a full-sized **chest drainage device**. A patient can thus be stepped down from a traditional **chest drain** to a Heimlich **valve**, making it easier for him to walk around. This can be particularly helpful for patients...

20/3,AB,K/33 (Item 33 from file: 149)  
DIALOG(R)File 149:TGG Health&Wellness DB(SM)  
(c) 2004 The Gale Group. All rts. reserv.  
02343711 SUPPLIER NUMBER: 113852566 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
Lung volume reduction surgery in canine model of predominantly upper lobe emphysema \*: advantages of new Surgical System.(laboratory & animal investigations)

Mink, Steven N.; Gonzalez, Xavier; Duke, Krika; Bautista, Edgar; Tan, Lawrence  
Chest, 125, 2, 633(11)  
Feb, 2004

PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0012-3692  
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional  
WORD COUNT: 7362 LINE COUNT: 00624  
... was placed in the right hemithorax and the chest incision was closed in planes.

The **chest tube** was connected to a Heimlich **valve**, and the **valve** was connected to a vacuum water- **trap** system. Air leaks were evaluated for approximately 30 to 200 min, and the presence or absence of air leaks was documented. When no bubbles were observed, the water- **trap** system was disconnected, and the **chest tube** was removed. The animals remained on **oxygen** support until they maintained adequate oxygenation and ventilation on their own. When considered stable, the...  
...12 mm (n = 1) diameter to reduce 25 to 50% of the lobe mass.

After **lung** volume reduction was completed, evaluation of perioperative air leaks was performed. With the **chest** filled with warm saline, no air leaks were observed from all the implant sites or

neighboring nonreduced **lung** tissue. Evaluation of postoperative air leaks was subsequently determined by attachment of a **chest tube** to a Heimlich **valve** connected to a water- **trap** system. After thorax evacuation, no air leaks were observed in six animals of the surgical...  
...in only one animal, a small intermittent leak was observed. This bubbling stopped prior to **chest tube** removal. In all dogs, **chest tubes** were removed 1 to 4 h after surgery. All dogs recovered without problems from surgery...

File 155:MEDLINE(R) 1966-2004/Apr W4

Set	Items	Description
S1	12	AU='SIROKMAN F':AU='SIROKMAN W A' [not relevant]
S2	101	COLLATERAL() VENTILATION
S3	68773	BYPASS
S4	0	S2() S3
S5	3	S2 AND S3
S6	9858	TRAP
S7	0	S3() S6
S8	1835809	THERAPY/DE
S9	6	S2 AND S8
S10	6	S9 NOT S5
S11	542	LONG() TERM(1W) OXYGEN() THERAPY
S12	0	S2 AND S11
S13	70046	HYPERINFLAT?(3N) LUNG? ? OR HYPOXIA OR HYPOXEMIC OR EMPHYSE- MA? OR CHRONIC() (LUNG OR OBSTRUCTIVE() PULMONARY) () DISEASE? ?
S14	267	S11 AND S13
S15	215786	TRAP? ? OR VESSEL? ? OR CONTAINER? ? OR CONTAINMENT
S16	158348	TUBE OR TUBES OR CONDUIT? ? OR CATHETER? ?
S17	2	S14 AND S15 AND S16
S18	2	S17 NOT (S5 OR S9)
S19	1	S2 AND S15 AND S16
S20	0	S19 NOT (S5 OR S9 OR S18)

5/9/2

DIALOG(R) File 155:MEDLINE(R)

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04942554 PMID: 759233

**Collateral ventilation .**

Menkes H; Traystman R; Terry P

Federation proceedings (UNITED STATES) Jan 1979, 38 (1) p22-6,

ISSN 0014-9446 Journal Code: 0372771

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Ventilation may **bypass** obstructed airways through collateral channels, including interalveolar pores of Kohn, bronchiole-alveolar communications of Lambert, and interbronchiolar pathways of Martin. Resistance through these channels, like resistance through small airways, increases with decreasing lung volume and with hypocapnia. But whereas the distention of collateral channels and small airways by a variety of factors is similar, the efficiency of ventilation through collateral channels is less than the efficiency through airways. Gas inspired through collateral channels is contaminated with alveolar gas from surrounding lung so that the dead space for **collateral ventilation** is increased. When one part of the lung ventilates out of phase with the surrounding lung, pulmonary interdependence promotes more homogeneous ventilation. In the presence of airways obstruction, interdependence may be a primary factor governing the rate of **collateral ventilation**. In man, **collateral ventilation** is unimportant in normal lungs. However, with disease, it may be critical in producing or compensating for abnormalities. For example, the long time constant for **collateral ventilation** in the middle lobe may be responsible for atelectasis, which results in the middle lobe syndrome. On the other hand, the short time constant for **collateral ventilation** in

emphysema may be essential for the distribution of ventilation beyond obstructed airways.

Tags: Human; Support, U.S. Gov't, P.H.S.

Descriptors: \*Lung--anatomy and histology--AH; \*Pulmonary Ventilation; Airway Resistance; Animals; Bronchi--anatomy and histology--AH; Carbon Dioxide--physiology--PH; Dogs; Elasticity; Lung--physiology--PH; Lung Compliance; Pulmonary Alveoli--anatomy and histology--AH; Pulmonary Diffusing Capacity

CAS Registry No.: 124-38-9 (Carbon Dioxide)

Record Date Created: 19790313

Record Date Completed: 19790313

5/9/3

DIALOG(R) File 155:MEDLINE(R)

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04655988 PMID: 618444

Collateral ventilation in man.

Terry P B; Traystman R J; Newball H H; Batra G; Menkes H A

New England journal of medicine (UNITED STATES) Jan 5 1978, 298 (1)  
p10-5, ISSN 0028-4793 Journal Code: 0255562

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS

To determine whether collateral ventilation (defined as the ventilation of alveolar structures through passages or channels that bypass the normal airways) changes with age or emphysema, we compared the mechanics of collateral ventilation in seven young normal subjects, three old normal subjects and five patients with emphysema. In supine normal subjects at the end of a quiet expiration, resistance to airflow was greater through collateral channels than through bronchi and bronchioles. In emphysema, airways resistance could exceed collateral resistance, causing air to flow preferentially through collateral pathways. We conclude that high collateral resistance minimizes collateral airflow in supine normal subjects. When peripheral airways become obstructed or obliterated in emphysema, collateral channels may provide for more even distribution of ventilation.

Tags: Female; Human; Male; Support, U.S. Gov't, P.H.S.

Descriptors: \*Pulmonary Alveoli--physiology--PH; \*Pulmonary Emphysema--physiopathology--PP; \*Respiration; Adult; Aging; Airway Resistance; Lung--physiology--PH; Middle Aged; Pulmonary Ventilation

Record Date Created: 19780127

Record Date Completed: 19780127

10/9/1

DIALOG(R) File 155:MEDLINE(R)

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13118822 PMID: 8784730

Atypical manifestations of pulmonary atelectasis.

Gurney J W

Department of Radiology, University of Nebraska Medical Center, Omaha 68198-1045, USA.

Journal of thoracic imaging (UNITED STATES) Summer 1996, 11 (3)  
p165-75, ISSN 0883-5993 Journal Code: 8606160

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed  
Subfile: INDEX MEDICUS

Recognizing atelectasis has always been a challenge. Atypical patterns further our knowledge of this subject. The lung has two mechanisms to help keep the lobes inflated: **collateral ventilation** and trapped nitrogen both tend to inflate the lungs when the airways are obstructed. Peripheral upper-lobe atelectasis resembles apical pleural fluid. Instead of collapsing superomedially, the upper lobe collapses posterolaterally, margined by either the middle lobe or the superior segment of the lower lobe. This pattern may also be produced by segmental atelectasis of the apical-posterior segments of the upper lobe. Combined right-upper- and middle-lobe atelectasis usually stems from malignancy and violates Felson's double lesion sign. Upper-lobe atelectasis may produce a localized pneumothorax (pneumothorax ex vacuo), analogous to the vacuum joint phenomenon. Conversely, a large pneumothorax may cause torsion of an upper-lobe bronchus, leading to atelectasis. It is important to distinguish between these two conditions in order to choose the appropriate treatment-bronchoscopy in the former and **chest tube drainage** in the latter. Round atelectasis is a form of peripheral atelectasis that is variable in size and is thought to occur either when the lung collapses around a cleft in the presence of a pleural effusion or when shrinkage of a pleural scar pinches the adjacent lung. Round atelectasis has many features of plate atelectasis and may represent a special form of this condition. (41 Refs.)

Tags: Human

Descriptors: \*Atelectasis--etiology--ET; Atelectasis--radiography--RA; Atelectasis-- **therapy** --TH; Bronchoscopy; Child; Lung--radiography--RA; Radiography, Thoracic; Tomography, X-Ray Computed--methods--MT

Record Date Created: 19961112

Record Date Completed: 19961112

10/9/2

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

11894338 PMID: 12088549

**Positive pressure techniques for airway clearance.**

Fink James B

Respiratory Science, Aerogen Incorporated, Mountain View, California 94043, USA. jfink@aerogen.com

Respiratory care (United States) Jul 2002, 47 (7) p786-96, ISSN 0020-1324 Journal Code: 7510357

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Positive airway pressure (PAP) has been used since the 1930s to improve oxygenation, increase lung volumes and reduce venous return. More recently, PAP has been identified as an effective method of splinting airway during expiration, improving **collateral ventilation**, increasing response to inhaled bronchodilators, and aiding secretion clearance in patients with cystic fibrosis and chronic bronchitis. A range of devices, administration techniques, and evidence supporting their clinical use is explored, suggesting that PAP is equivalent to postural drainage in the clearance of secretions. PAP produced by threshold and fixed orifice resistors generate



different characteristic flow, and airway and esophageal pressure patterns that may contribute to different physiologic effects. Further clinical studies are required to better understand the effects of these differences. (38 Refs.)

Tags: Human

Descriptors: \*Positive-Pressure Respiration; Aerosols--administration and dosage--AD; Bronchitis, Chronic-- **therapy** --TH; Cystic Fibrosis-- **therapy** --TH; Pulmonary Ventilation; Respiratory **Therapy** --instrumentation--IS

CAS Registry No.: 0 (Aerosols)

Record Date Created: 20020628

Record Date Completed: 20020906

10/9/3

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

11777695 PMID: 11962175

**"Spare the cough, spoil the airway:" back to the basics in airway clearance.**

Donahue Michael

Children's Hospital of Philadelphia, Philadelphia, PA, USA.

Pediatric nursing (United States) Mar-Apr 2002, 28 (2) p107-11,

ISSN 0097-9805 Journal Code: 7505804

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: NURSING

Cough is the natural defense mechanism for protection of the respiratory tract. It is used to mobilize and remove secretions from the respiratory tree, moving them from the peripheral to the central airways. Effective airway clearance for individuals with cystic fibrosis is an essential component of daily therapy because of the thick and tenacious secretions that accumulate in their airways. Regardless of the airway clearance method used, effective coughing is the key part of the process. Understanding airway physiology and utilizing the equal pressure point and the **collateral ventilation** system between airways will make airway clearance activities most effective. Finding a match between an effective airway clearance method that uses cough effectively and a patient's preference is the challenge for the care provider. (12 Refs.)

Tags: Female; Human; Male

Descriptors: Airway Obstruction-- **therapy** --TH; \*Cough--physiopathology --PP; \*Cystic Fibrosis-- **therapy** --TH; \*Drainage, Postural--methods--MT; \*Positive-Pressure Respiration--instrumentation--IS; \*Respiratory **Therapy** --instrumentation--IS; Airway Obstruction--etiology--ET; Airway Resistance; Bronchi--secretion--SE; Child; Child, Preschool; Cystic Fibrosis --complications--CO; Cystic Fibrosis--nursing--NU; Drainage, Postural --instrumentation--IS; Mucociliary Clearance--physiology--PH; Pediatric Nursing--methods--MT; Positive-Pressure Respiration--methods--MT; Prognosis ; Pulmonary Ventilation; Respiratory **Therapy** --methods--MT; Severity of Illness Index; Treatment Outcome

Record Date Created: 20020418

Record Date Completed: 20020802

10/9/4

DIALOG(R) File 155:MEDLINE(R)

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07536041 PMID: 3623806

**Right middle lobe syndrome in children.**

Livingston G L; Holinger L D; Luck S R

International journal of pediatric otorhinolaryngology (NETHERLANDS)

Jun 1987, 13 (1) p11-23, ISSN 0165-5876 Journal Code: 8003603

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Right middle lobe syndrome (RMLS) is characterized by a spectrum of diseases from recurrent atelectasis and pneumonitis to bronchiectasis of the middle lobe. It has been described among all age groups, although the diagnosis in pediatrics may be delayed or missed because of non-specific symptoms or findings. Twenty-one children with RMLS were evaluated during the past 10 years with particular attention to the history, bronchoscopic and pathologic findings. Most of these patients had asthma or a family history of atopic disorders; 3 patients had a family history of RMLS. Only two of the 21 patients had sufficient obstruction on bronchoscopy to account for their disease. Four had evidence of concomitant laryngeal pathology. The various theories of pathogenesis are discussed. In this series, the non-obstructive (impaired **collateral ventilation**) theory appeared to be most plausible. Bronchoscopy was performed in all instances to rule out obstruction due to foreign body or tumor. It was therapeutic in two-thirds of the cases. Resolution occurred promptly in one-third, and eventually in another third. Of the remaining patients, 4 required lobectomy and were cured; two have decreased but persistent symptoms. An aggressive medical management following bronchoscopy is warranted in all cases, especially when there is a possibility of asthma.

Tags: Female; Human; Male

Descriptors: \*Middle Lobe Syndrome; Asthma--complications--CO; Asthma--**therapy**--TH; Atelectasis--complications--CO; Atelectasis--**therapy**--TH; Bronchiectasis--complications--CO; Bronchiectasis--**therapy**--TH; Bronchoscopy; Child; Child, Preschool; Infant; Middle Lobe Syndrome--diagnosis--DI; Middle Lobe Syndrome--**therapy**--TH; Retrospective Studies

Record Date Created: 19871007

Record Date Completed: 19871007

10/9/5

DIALOG(R) File 155:MEDLINE(R)

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06161867 PMID: 6344820

**Middle lobe syndrome.**

Wagner R B; Johnston M R

Annals of thoracic surgery (UNITED STATES) Jun 1983, 35 (6) p679-86,

ISSN 0003-4975 Journal Code: 15030100R

Document type: Journal Article; Review

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: AIM; INDEX MEDICUS

A review of the major literature dealing with the middle lobe syndrome shows that benign inflammatory disease is the most common etiological factor (62%), with bronchiectasis responsible for at least a quarter of the patients in these series. Early workers indicated that carcinoma rarely

originates in the right middle lobe; however, 22% of patients reviewed had malignant tumors as a cause of the syndrome. The original view that bronchial compression was the pathophysiological abnormality leading to development of the syndrome has been rejected by more recent authors. The focus has now turned to the relative isolation of the middle lobe, especially when a complete minor fissure is present. This isolation prevents the aerating effects of **collateral ventilation** of the upper lobe from reaching the middle lobe and thus impairs the clearing of secretions from the middle lobe bronchus. Bronchoscopy and bronchography are vital in the rational approach to this syndrome. Severe stenosis of the bronchus or tumor can be seen endoscopically in about 40% of patients, and bronchography will demonstrate an anatomical abnormality more than 70% of the time. Both the surgical and the medical approaches to therapy have been endorsed strongly by various authors in the 30 years since the syndrome was described. It now appears that bronchoscopy and, if need be, bronchography should be undertaken to rule out an endobronchial lesion. Timing of these studies will depend on the patient's age, with early examination advocated for the older patient at high risk for lung cancer. If there is reasonable evidence that the process is benign, medical management should be attempted. Lobectomy is performed if malignancy is suspected or if medical therapy fails. (71 Refs.)

Tags: Female; Human; Male

Descriptors: \*Middle Lobe Syndrome; Child, Preschool; Infant; Lung --radiography--RA; Middle Lobe Syndrome--diagnosis--DI; Middle Lobe Syndrome--pathology--PA; Middle Lobe Syndrome--physiopathology--PP; Middle Lobe Syndrome-- **therapy** --TH

Record Date Created: 19830708

Record Date Completed: 19830708

18/9/1

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

08586713 PMID: 2114622

[Acute and long-term effects of chronic obstructive lung diseases]

Sauerstoffakut- und -langzeitwirkung bei chronisch-obstruktiven Lungenerkrankungen.

Klein G; Matthys H

Fachbereich Pneumologie, Deutsche Klinik für Diagnostik Wiesbaden.

Pneumologie (Stuttgart, Germany) (GERMANY, WEST) Feb 1990, 44 Suppl 1 p188-90, ISSN 0934-8387 Journal Code: 8906641

Document type: Journal Article ; English Abstract

Languages: GERMAN

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

In patients with **chronic obstructive pulmonary diseases** and cor pulmonale, long-term treatment with oxygen leads to a reduction in pulmonary arterial pressure. The aim of this study was investigate the question as to the extent to which pulmonary arterial pressure reduction in response to acute administration of oxygen differed from the long-term effect of oxygen treatment, and whether it was possible to determine prognostic factors that would identify the patients who would obtain particular benefit from **long - term oxygen therapy** . Twenty patients suffering from severe obstruction, global respiratory failure and precapillary hypertension, were treated with oxygen for a period of 20 +/- 6 months. At the beginning of the treatment, the acute oxygen-induced

reversibility of pulmonary hypertension with an FIO<sub>2</sub> of 80% was established. After an average of 20 months, **catheter** examination was repeated. A comparison was made between reversibility with acute oxygen and the long-term effects of oxygen. Long-term treatment with oxygen led to a reduction in pulmonary arterial pressure (18%), which was comparable to the reversibility established for acute oxygen inspiration (20%). While, over the long-term, a reduction in pulmonary arterial pressure was caused solely by a drop in pulmonary **vessel** resistance, acute application of oxygen resulted in an approximately equal decrease in pulmonary **vessel** resistance and cardiac output. The more pronounced the pulmonary hypertension prior to treatment the greater the pressure reduction achieved with long-term oxygen treatment. Patients with a particularly marked acute oxygen reversibility also had greater long-term benefit, in the sense that, in these cases, the decrease in pulmonary arterial pressure was more substantial than in patients with smaller acute reversibility.

Tags: Human

Descriptors: \*Hypertension, Pulmonary--therapy--TH; \*Lung Diseases, Obstructive--therapy--TH; \*Oxygen Inhalation Therapy--methods--MT; Arrhythmia--therapy--TH; Forced Expiratory Volume; Hematocrit; Long-Term Care

Record Date Created: 19900814

Record Date Completed: 19900814

18/9/2

DIALOG(R) File 155:MEDLINE(R)

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04700672 PMID: 622539

**Indications and costs of long - term oxygen therapy ]**

Indikationen und Kosten der Sauerstoff-Langzeitbehandlung.

Scherrer M

Schweizerische medizinische Wochenschrift (SWITZERLAND) Jan 28 1978,  
108 (4) p110-3, ISSN 0036-7672 Journal Code: 0404401

Document type: Journal Article ; English Abstract

Languages: GERMAN

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

Nowadays, domiciliary long-term O<sub>2</sub> therapy is given to certain patients with chronic arterial hypoxemia (PaO<sub>2</sub> less than 55 mm Hg). However, it is important to exclude cases with severe CO<sub>2</sub> retention (PaCO<sub>2</sub> greater than 55 mm Hg). **Hypoxemic** and only slightly hypercapnic patients chiefly suffer from COLD and sometimes from a severe restrictive ventilatory disorder such as chronic bilateral pleural effusions or advanced kyphoscoliosis. The most important precondition for long-term O<sub>2</sub> therapy is correct adjustment of all other procedures of pulmonary treatment, as well as total abstention from smoking. Common sources for domiciliary O<sub>2</sub> therapy are bottles delivered to the patient's home weekly by the O<sub>2</sub>-producing firm. A new machine which appears to offer for greater facilities is the O<sub>2</sub> concentrator of Rimer-Birlec (Cardiff, Wales). 2 liters O<sub>2</sub>/min are given via a naso-pharyngeal **tube** for 15 h per day. Without O<sub>2</sub> during 9 h per day, the patient is able to follow appropriate employment. In domiciliary long-term O<sub>2</sub> therapy the cost of O<sub>2</sub> supply by the O<sub>2</sub> concentrator is half that of bottles delivered to the home weekly. The new O<sub>2</sub> concentrator for domiciliary long-term O<sub>2</sub> therapy is recommended as by far the most economical source of O<sub>2</sub>. Other sources of O<sub>2</sub> such as liquid O<sub>2</sub> or chemically produced O<sub>2</sub> are uneconomical for domiciliary use. Only hospitals

will benefit from supplying their pipelines from a **container** with liquid oxygen instead of using gaseous O2 from bottles. The cost of the former is 3/4 that of the latter.

Tags: Human

Descriptors: \*Anoxemia--therapy--TH; \*Bronchial Spasm--complications--CO;  
\*Oxygen Inhalation Therapy--economics--EC; Anoxemia--etiology--ET;  
Breathing Exercises; Home Nursing; Kyphosis--complications--CO; Oxygen  
Inhalation Therapy--instrumentation--IS; Pleural Effusion--complications  
--CO; Pulmonary Fibrosis--therapy--TH; Scoliosis--complications--CO

Record Date Created: 19780321

Record Date Completed: 19780321

Serial 10/613860

May 3, 2004

File 350:Derwent WPIX 1963-2004/UD,UM &amp;UP=200427

File 347:JAPIO Nov 1976-2003/Dec(Updated 040402)

File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	2398733	TUBE OR TUBES OR TUBING OR CONDUIT? ? OR TUBUL? OR CATHETE- R? ? OR PIPET??? OR DUCT? ? OR CANNULA? ? OR CHANNEL? ? OR PI- PE OR PIPES OR PIPING
S2	615742	TRAP OR TRAPS OR CONTAINER? ? OR (CONTAINMENT OR DRAINAGE) - ( ) (VESSEL? ? OR DEVICE? ?)
S3	1361259	FILTER? ? OR FILTRATION OR VALVE? ?
S4	32368	CHEST OR THORACIC OR LUNG
S5	1105440	VISCERAL OR WALL OR WALLS
S6	264	(PULMONARY OR LUNG OR OXYGEN OR O2) (1W) THERAPY
S7	333	ATELECTASIS OR MIDDLE() LOBE() SYNDROME OR BRONCHIECTASIS OR TRAPPED() AIR(2N) LUNG? ?
S8	71	DRAINAGE() COLLECTION
S9	306994	OXYGEN OR O2
S10	8179	IMPLANTABLE
S11	6420	COLLATERAL() VENTILATION OR AIRWAY() RESISTANCE OR EMPHYSEMA? OR HYPERINFLAT??? (2N) LUNG? ? OR CRICOTHYROID? OR HYPOXIA OR - HYPOXEMI? ? OR HYPOXAEMI? ? OR COPD OR CHRONIC() OBSTRUCTIVE() - PULMONARY() DISEASE OR CHRONIC() LUNG() DISEASE OR CHRONI...
S12	100115	IC=A61M
S13	100115	IC=A61M?
S14	0	S1 AND S2 AND S3 AND S4 AND S5 AND S6
S15	29387	S1 AND S2 AND S3
S16	2	S15 AND S6
S17	749	S1 AND S4 AND S5
S18	30	S15 AND S17
S19	6	S12 AND S18
S20	6	S19 NOT S16
S21	212	S1 AND (S4 OR S6) AND (S7 OR S11)
S22	0	S15 AND S21
S23	39	S12 AND S21
S24	39	S23 NOT (S16 OR S20)
S25	75	S1(S) (S4 OR S6) (S) (S7 OR S11)
S26	9	S24 AND S25
S27	51	E3-E8
S28	5	S26 NOT S27
S29	465	S17/TI
S30	174	S12 AND S29
S31	3	S2 AND S3 AND S30
S32	0	S31 NOT (S26 OR S16 OR S20)
S33	9925	IC=A61M-016
S34	42	S29 AND S33
S35	40	S34 NOT (S16 OR S20 OR S26)
S36	40	S35 AND (S6 OR S7 OR S11 OR S4)
S37	14	S35 AND (S6/TI OR S7/TI OR S11/TI OR S4/TI)
S38	26	S36 NOT S37

16/26,TI/1 (Item 1 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009803003

WPI Acc No: 1994-082857/199410

Nebulizer for high-humidity oxygen therapy - has hydrophobic finely

porous antibacterial membrane in delivery flow path

16/26, TI/2 (Item 2 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
004239751  
WPI Acc No: 1985-066629/198511  
Oxygen supply regulator - has valve between nozzles, contg. channelled piston causing gas pressure formation behind it to secure absolute valve closure

20/26, TI/1 (Item 1 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
015080168  
WPI Acc No: 2003-140686/200313  
Medical device useful in e.g. vessel comprises an invasive device (ID) and a coating on all or a portion of the device comprising an oxygen liberating substance

20/26, TI/5 (Item 5 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
007152101  
WPI Acc No: 1987-152098/198722  
Improved blood filter unit reducing gas bubble danger - provided with two highest point gas exits and better positioned blood outlet preventing kinking

20/26, TI/6 (Item 1 from file: 347)  
DIALOG(R) File 347:JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.  
07018341  
DOUBLE TANK TYPE BLOOD STORAGE TANK

20/7, K/2 (Item 2 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
011663537 \*\*Image available\*\*  
WPI Acc No: 1998-080446/199808  
Medical suction container for expelling body fluid from chest of patients - has by-pass pipe with valve which opens when excessive negative pressure is developed at suction coupling opening side  
Patent Assignee: HAMA IKA KOGYO KK (HAMA-N)  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applicat No Kind Date Week  
JP 9313596 A 19971209 JP 96157621 A 19960529 199808 B  
Priority Applications (No Type Date): JP 96157621 A 19960529  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
JP 9313596 A 5 A61M-001/00  
Abstract (Basic): JP 9313596 A

The container (11) has a water sealing part (19) and a fluid collector part (17) which are divided by a wall partition (15). A tubing part (25) is formed in a suspending partition (27) which is provided in the water sealing part. The fluid collector part is partitioned with a built-up partition (21,23).

Serial 10/613860

May 3, 2004

A suction coupling opening (12) provided at the upper part of the fluid collector part and an exhaust coupling opening (13) formed from upper part of the water sealing part are coupled by a by-pass pipe (34). The by-pass pipe is provided with a filter (36) and a valve (38). The excessive negative pressure in the suction opening is released by opening of the valve.

ADVANTAGE - Releases negative pressure developed in patient's chest. Enables easy and economic manufacturing. Prevents polluted air from entering into fluid collector part side.

Dwg.1/4

Derwent Class: P34

International Patent Class (Main): A61M-001/00

20/7,K/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007444962 \*\*Image available\*\*

WPI Acc No: 1988-078896/198812

Human chest drainage device - has one-way valve between discharge and inlet chambers, latter having catheter mounted to one wall

Patent Assignee: BAZELL S (BAZE-I); GOLDBERG E M (GOLD-I); BECTON DICKINSON CO (BECT )

Inventor: BAZELL S; GOLDBERG E M

Number of Countries: 014 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 260543	A	19880323	EP 87112926	A	19870904	198812 B
WO 8801879	A	19880324	WO 86US1886	A	19860916	198813
DK 8704838	A	19880324				198832
CA 1254468	A	19890523				198925
EP 323451	A	19890712	EP 86906070	A	19860916	198928
JP 1501521	W	19890601				198928
EP 323451	B	19910828				199135
DE 3681181	G	19911002				199141
DK 168786	B	19940613	WO 86US1886	A	19860916	199427
			DK 874838	A	19870915	

Priority Applications (No Type Date): WO 86US1886 A 19860916; WO 86UUS1886 U 19860916

Cited Patents: EP 137061; GB 2140301; US 3463159; US 4532935

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 260543	A	E	17		
Designated States (Regional): AT BE CH DE FR GB IT NL SE					
WO 8801879	A	E			
Designated States (National): DK JP					
Designated States (Regional): AT BE CH DE FR GB IT LU NL SE					
EP 323451	A	E			
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
EP 323451	B				
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
DK 168786	B			A61M-001/00	patent DK 8704838

Abstract (Basic): EP 260543 A

A one-way valve (25) is mounted in a housing body (11) and couples an inlet chamber (12) with a discharge chamber (13) so as to prevent the passage of fluid between two chambers except through the valve. The valve has its inlet end in communication with the inlet



chamber.

The **valve** has its outlet end in communication with a discharge chamber. The valve is adapted to permit the irreversible passage of drainage material passing through from its inlet end to its outlet end.

USE/ADVANTAGE - A compact, self-contained device for the drainage of a body cavity, such as the **chest**.

2/12

Abstract (Equivalent): EP 323451 B

Apparatus for drainage of a body cavity, comprising: a housing body having portions (15, 16) defining an inlet chamber (12) and a discharge chamber (13); said housing body portion defining said inlet chamber having mounting means for supporting a **catheter** in sealed arrangement therewith and in fluid communication with said inlet chamber; a **catheter** (20) supported by said mounting means and extending outwardly from said inlet chamber, said **catheter** being in fluid communication with said inlet chamber; an inlet port (21) in said housing body portion defining said inlet chamber adapted to reversibly receive a trocar (14) and enable at least a portion of a trocar to pass through said inlet chamber and said **catheter**, said inlet port including sealing means (22); characterised in that said sealing means seals said inlet chamber against the ambient atmosphere in the absence of a trocar, and is adapted upon insertion and upon withdrawal of a trocar from at least said **catheter** and with respect to said inlet chamber and said inlet port to seal said inlet chamber from the ambient atmosphere; and in that the apparatus further comprises: a one-way **valve** (25) mounted in said housing body and coupling said inlet chamber with said discharge chamber so as to prevent the passage of fluid between said chambers except through said **valve**, said **valve** having its inlet end in communication with said inlet chamber, said **valve** having its outlet end in communication with said discharge chamber, said **valve** being adapted to permit the irreversible passage of drainage material passing therethrough from its inlet end to its outlet end; and hydrophobic **filter** means (33) in communication with the discharge chamber for filtering gaseous fluids from said discharge chamber. (20pp)

Derwent Class: P34

International Patent Class (Main): A61M-001/00

20/7,K/4 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007326054

WPI Acc No: 1987-323061/198746

**Flexible chest drainage bag - with tube projected downwardly into bag alongside valve to resist folding of bag**

Patent Assignee: BABER K R (BABE-I); MATTHEWS H R (MATT-I); SMITHS IND PLC (SMIS )

Inventor: MATTHEWS H R

Number of Countries: 010 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2190355	A	19871118	GB 8710223	A	19870430	198746 B
DE 3715486	A	19871119	DE 3715486	A	19870509	198747
AU 8772905	A	19871119				198802
FR 2598623	A	19871120				198803
SE 8701999	A	19871118				198805

The bag has an inlet with a flutter valve , and a venting outlet

formed by a rigid or semi-rigid tube . The tube projects downwardly into the bag alongside the flutter valve to its lower end so as to resist folding of the bag in the region of the valve .

The tube has an open lower end and several apertures along its opposite sides between the walls of the bag, so that the apertures are not obstructed by the material of the bag. One aperture is located close to the top of the bag to allow fluid to be drained from the bag when the bag is inverted.

USE/ADVANTAGE - A flexible chest drainage bag. The upper end of the tube is external of the bag and is provided with a plastics cage to prevent occlusion of the tube . (5pp) i

Derwent Class: P31; P32; P34; Q32

International Patent Class (Main): A61M-001/00

International Patent Class (Additional): A61B-019/00; A61F-005/44;

A61M-027/00 ; B65D-030/24; B65D-033/01

26/26, TI/3 (Item 3 from file: 350)

DIALOG(R) File 350: Derwent WPIX

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015876941

WPI Acc No: 2004-034774/200403

Lung airway wall opening maintaining conduit has springs located towards distal and proximal portions of conduit , where springs expand to secure conduit within opening when inserted into opening

26/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014551156

WPI Acc No: 2002-371859/200240

Real time patient airway variable estimation method for pressure based ventilator system, involves measuring flow of gas to connecting tube circuit and pressure of gas within tube circuit

26/7, K/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015040784 \*\*Image available\*\*

WPI Acc No: 2003-101300/200309

**Pleural cavity drainage apparatus**

Patent Assignee: BASHBIOMED SCI PRODN ASSOC CO LTD (BASH-R); FATIKHOV R G (FATI-I); PLECHEV V V (PLEC-I); UNIV BASHKIR MED (UYBA-R)

Inventor: FATIKHOV R G; PLECHEV V V

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2192185	C1	20021110	RU 2001112402	A	20010504	200309 B

Priority Applications (No Type Date): RU 2001112402 A 20010504

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
RU 2192185	C1		A61B-017/34	

Abstract (Basic): RU 2192185 C1

NOVELTY - Apparatus is made in the form of body of rotation comprising cylindrical casing. Pleural end of casing is provided with flexible corrugation and opposite end is provided with restricting cuff and branch pipe for connecting drain pipe . Trocar is made in the

form of movable axially spring-loaded stilette located in **tubular** casing, which is provided with annular clamp for securing branch **pipe**, handle and lever. Free end of corrugation is made so as to be inserted between stilette and casing ends and pinched. Such construction allows wound **channel** wall to be isolated from penetration of pleural cavity contents and air and, accordingly, development of cutaneous **emphysema** and **chest** phlegmon to be prevented.

USE - Medicine.

ADVANTAGE - Increased efficiency and simplified construction. 5 dwg pp; 0 DwgNo 1/1

Derwent Class: P31; P34

International Patent Class (Main): A61B-017/34

International Patent Class (Additional): A61M-025/01 ; A61M-025/12

26/7,K/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010003648 \*\*Image available\*\*

WPI Acc No: 1994-271359/199433

**Method of inserting cricothyroidal endotracheal device - has tube inserted through surgical opening in patient prior to connection to oxygen@ supply**

Patent Assignee: BECK C A (BECK-I); SCHER N (SCHE-I)

Inventor: BECK C A; SCHER N

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5339809	A	19940823	US 91802355	A	19911204	199433 B
			US 9359187	A	19930506	

Priority Applications (No Type Date): US 91802355 A 19911204; US 9359187 A 19930506

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 5339809 A 6 A61M-005/178 Cont of application US 91802355

Abstract (Basic): US 5339809 A

The method for providing continuous **oxygen therapy** to a patient having chronic breathing problems, comprises providing a **cricothyroidal** endotracheal apparatus including: a first elongated and hollow **tube** portion formed of semi-rigid material and having an outer diameter between approximately 5 and 9 mm, and less than the inside diameter of the trachea.

To prevent damage to the trachea during insertion a closed distal end tapers downwardly towards the distal end. There are vertically spaced apertures extending away from the distal end. The vertically spaced apertures allow fluid to flow between an interior and an exterior of the first **tube** portion.

ADVANTAGE - Minimised air leakage.

Dwg.1/4

Derwent Class: P34

International Patent Class (Main): A61M-005/178

International Patent Class (Additional): A61M-016/00 ; A61M-025/00

26/7,K/5 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

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05147992    \*\*Image available\*\*

**CATHETER FOR SUCTION**

PUB. NO.:        08-103492    [JP 8103492 A]  
PUBLISHED:      April 23, 1996 (19960423)  
INVENTOR(s):    TAGUMA NORIMASA  
APPLICANT(s):   TAGUMA NORIMASA [000000] (An Individual), JP (Japan)  
APPL. NO.:      06-276919    [JP 94276919]  
FILED:          October 05, 1994 (19941005)

**ABSTRACT**

PURPOSE: To obtain a safe and efficient **catheter** by providing a suction **pipe** with a side **pipe** to be installed in combination therewith, opening both at the front ends and forming a **catheter** in such a manner that the front end of an intermediate partition wall leaves a gap without arriving at the front end of the **catheter** and or the front end of the intermediate wall is notched to make the intermediate wall vibratable at the time of use.  
CONSTITUTION: A negative pressure is generated in a suction **pipe** cavity 1 and the phlegm, etc., to be sucked are sucked to the front end of the **catheter** when the suction **pipe** is connected to a suction **pipe** and the negative pressure is applied thereon in the case of the shape lacking the intermediate wall 3 of the front end. The effect of this negative pressure acts on the side **pipe** through the non-closed lacking part according to this suction and, therefore, the air and medicinal liquid in the side **pipe** cavity 2 are eventually sucked out through the lacking part to the suction **pipe** cavity 1 side. The sucked out flow simultaneously washes the viscous object, such as phlegm 8, at the front end of the **catheter**, thus having the effect of making the suction easy and preventing the closing of the lacking part with the object. For example, a danger of forming an **atelectasis** is averted at the time of sucking the phlegm of the **lung**.

26/3,IC/1        (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
016046817  
WPI Acc No: 2004-204668/200420  
XRAM Acc No: C04-080914  
XRPX Acc No: N04-162613

Collateral ventilation **bypass trap system for removing trapped air in emphysematous lungs, comprises at least one conduit having first end connected to containment vessel and second end passing through thoracic wall and lung of patient**

Patent Assignee: CORDIS CORP (CRDC ); TANAKA D (TANA-I)

Inventor: **TANAKA D**

Number of Countries: 033    Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1393760	A1	20040303	EP 2003255306	A	20030827	200420 B
US 20040040555	A1	20040304	US 2002406624	P	20020828	200420
			US 2003613860	A	20030703	
CA 2438823	A1	20040228	CA 2438823	A	20030828	200421

Priority Applications (No Type Date): US 2003613860 A 20030703; US 2002406624 P 20020828

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 1393760	A1	E 16	A61M-001/00	

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Serial 10/613860

May 3, 2004

US 20040040555 A1            A61M-016/00    Provisional application US 2002406624  
CA 2438823    A1 E            A61M-016/00  
International Patent Class (Main):    A61M-001/00 ;    A61M-016/00  
International Patent Class (Additional):    A61M-016/10 ;    A61M-016/20

**26/3,IC/2            (Item 2 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

016000773

WPI Acc No: 2004-158623/200416

XRAM Acc No: C04-063267

XRPX Acc No: N04-126751

**Long-term oxygen therapy system for treating hypoxemic patients  
having chronic obstructive pulmonary disease , includes oxygen  
supply, valve, conduit , and sealing device that provides fluid tight  
seal between conduit and thoracic wall**

Patent Assignee: CORDIS CORP (CRDC ) ; TANAKA D (TANA-I)

**Inventor: TANAKA D**

Number of Countries: 033    Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1386635	A1	20040204	EP 2003254748	A	20030729	200416 B
CA 2436483	A1	20040131	CA 2436483	A	20030731	200416
US 20040024356	A1	20040205	US 2002399907	P	20020731	200416
			US 2003613358	A	20030703	

Priority Applications (No Type Date): US 2003613358 A 20030703; US

2002399907 P 20020731

Patent Details:

Patent No    Kind    Lan    Pg    Main    IPC    Filing Notes

EP 1386635    A1    E    13    A61M-037/00

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HU IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

CA 2436483    A1    E            A61M-016/00

US 20040024356 A1            A61M-029/00    Provisional application US 2002399907

International Patent Class (Main):    A61M-016/00 ;    A61M-029/00 ;

**A61M-037/00**

International Patent Class (Additional):    A61M-031/00

**26/3,IC/4            (Item 4 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

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015196455

WPI Acc No: 2003-256991/200325

Related WPI Acc No: 2001-183025; 2002-665488; 2002-731244; 2003-090179;

2003-090394; 2003-635036; 2003-877133; 2004-059032; 2004-081957;

2004-118964

XRPX Acc No: N03-203827

**Conduit for altering gaseous flow in lung of chronic obstructive  
pulmonary disease victim has cage structure adjacent conduit second  
end with opening and cage passageway in fluid communication with center  
section passageway**

Patent Assignee: BRNCUS TECHNOLOGIES INC (BRON-N)

Inventor: COLE C; ESTRIDGE T; KAPLAN G; LAUFER M D; LOOMAS B; REICH C J;

ROSCHAK E; BIGGS M; CHANDOS D; COLLINSON M; COOPER J D; KARABEY H; KEAST  
T; REDMOND R; SAENZ S; **TANAKA D**; THOMPSON D; VIDAL C

Number of Countries: 100    Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200320338	A2	20030313	WO 2002US28237	A	20020904	200325 B
US 20040073155	A1	20040415	US 2000176141	P	20000114	200426
			US 2000633651	A	20000807	
			US 2001908177	A	20010718	
			US 2001947144	A	20010904	
			US 2002387163	P	20020607	
			US 2002235240	A	20020904	
			US 2002420440	P	20021021	
			US 2003458085	A	20030609	

Priority Applications (No Type Date): US 2002387163 P 20020607; US 2001317338 P 20010904; US 2001947144 A 20010904; US 2001334642 P 20011129; US 2002367436 P 20020320; US 2002374022 P 20020419; US 2000176141 P 20000114; US 2000633651 A 20000807; US 2001908177 A 20010718; US 2002235240 A 20020904; US 2002420440 P 20021021; US 2003458085 A 20030609

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200320338	A2	E	99	A61M-000/00	
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

US 20040073155	A1			A61F-002/04	Provisional application US 2000176141
					Cont of application US 2000633651
					CIP of application US 2001908177
					CIP of application US 2001947144
					Provisional application US 2002387163
					CIP of application US 2002235240
					Provisional application US 2002420440
					Cont of patent US 6692494

International Patent Class (Main): A61F-002/04; A61M-000/00

International Patent Class (Additional): A61B-019/00

26/3,IC/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX.

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015029662

WPI Acc No: 2003-090179/200308

Related WPI Acc No: 2001-183025; 2002-665488; 2002-731244; 2003-248441; 2003-256991; 2003-635036; 2003-877133; 2004-081957; 2004-118964

XRAM Acc No: C03-022787

XRPX Acc No: N03-071185

**Placing of conduit within lung tissue for treating patient having chronic obstructive pulmonary disease, by feeding guide wire to site within lung, advancing conduit using guide wire and placing within lung tissue**

Patent Assignee: BRONCUS TECHNOLOGIES INC (BRON-N)

Inventor: COOPER J D; DAVENPORT J M; KAPLAN G; LOOMAS B; TANAKA D

Number of Countries: 100 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020111620	A1	20020815	US 2001269130	P	20010214	200308 B

US 2001947144 A 20010904  
WO 200264190 A2 20020822 WO 2002US4610 A 20020214 200308  
AU 2002248443 A1 20020828 AU 2002248443 A 20020214 200427  
Priority Applications (No Type Date): US 2001269130 P 20010214; US  
2001947144 A 20010904  
Patent Details:  
Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020111620 A1 57 A61B-018/18 Provisional application US 2001269130  
WO 200264190 A2 E A61M-000/00  
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ  
OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU  
ZA ZM ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW  
AU 2002248443 A1 A61M-000/00 Based on patent WO 200264190  
International Patent Class (Main): A61B-018/18; A61M-000/00

37/26, TI/1 (Item 1 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
015408654  
WPI Acc No: 2003-470794/200345  
Device isolating one side of patient's airway for single- lung  
ventilation during surgery, includes mask, tubing and inflatable collar  
seal for bronchial stem

37/26, TI/3 (Item 3 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013750741  
WPI Acc No: 2001-234970/200124  
Devices, compositions and methods for achieving nonsurgical lung volume  
reduction

37/26, TI/4 (Item 4 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013411112  
WPI Acc No: 2000-583050/200055  
Valve gear for respiration mask of bellows-type artificial respirator,  
has valve chest with air inlet and exhaust ports on enclosure wall of  
mask, and linkage interlocking valves at both ports

37/26, TI/5 (Item 5 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013192903  
WPI Acc No: 2000-364776/200031  
Guided tracheal intubation device for facilitating lung ventilation in  
unconscious patients includes flexible thin tube and bulb mounted at  
the distal end of the tube

37/26, TI/6 (Item 6 from file: 350)  
DIALOG(R) File 350:Derwent WPIX



(c) 2004 Thomson Derwent. All rts. reserv.

012734637

WPI Acc No: 1999-540754/199945

Medical device used as endotracheal, tracheostomy, nasopharyngeal,  
nasogastric and chest tube, wound drain and catheter

37/26, TI/7 (Item 7 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011445389

WPI Acc No: 1997-423296/199739

Lung disease treatment apparatus - incorporates respiratory vibrator  
with conical seat and metal ball

37/26, TI/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011236712

WPI Acc No: 1997-214615/199720

Tracheal tube for use with lung ventilator - has additional inlet in  
oro-pharynx section for entraining patient's own nitrogen oxide in  
inspiratory gas flow

37/26, TI/9 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

011098524

WPI Acc No: 1997-076449/199707

Endotracheal appts. for insertion through mouth and into trachea of  
patient for ventilating one lung and blocking other - comprises cuff  
manoeuvred into left or right bronchus of patient by sliding and rotating  
catheter or bronchial blocker into position to occlude selected  
bronchus

37/26, TI/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

010231920

WPI Acc No: 1995-133177/199518

Lung ventilator e.g. for use in resuscitation, rescue breathing and  
patient transport - has discrete trigger operation to initiate each  
successive ventilation cycle which is performed by pneumatic or  
electrically operated mechanisms

37/26, TI/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

009465132

WPI Acc No: 1993-158668/199319

Administration of liquid surfactant to an infants lung - comprises  
simultaneous admin. of the surfactant while ventilating lung using  
breathing tube by feeding in oxygen@-rich airstream

37/26, TI/13 (Item 13 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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Serial 10/613860

May 3, 2004

002297633

WPI Acc No: 1980-A4065C/198002

Intubation tube for single lung ventilation - has elastic air- and  
water-proof divider between two ducts

37/26, TI/14 (Item 1 from file: 347)

DIALOG(R) File 347: JAPIO

(c) 2004 JPO &amp; JAPIO. All rts. reserv.

03832261

TUBE IN TRACHEA FOR VENTILATING ONE SIDE LUNG

37/7, K/2 (Item 2 from file: 350)

DIALOG(R) File 350: Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014205839 \*\*Image available\*\*

WPI Acc No: 2002-026536/200203

One-way valve and methods for use in bronchus for lung volume reduction  
has a flutter valve held in an expandable frame and a skirt with radial  
anchors

Patent Assignee: SHAW MEDICAL INVENTIONS LTD (SHAW-N); SHAW D P (SHAW-I)

Inventor: SHAW D P

Number of Countries: 096 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200187170	A1	20011122	WO 2001NZ92	A	20010518	200203 B
AU 200160840	A	20011126	AU 200160840	A	20010518	200222
EP 1284663	A1	20030226	EP 2001934679	A	20010518	200319
			WO 2001NZ92	A	20010518	
US 20030164168	A1	20030904	WO 2001NZ92	A	20010518	200359
			US 2003275995	A	20030407	
JP 2003533266	W	20031111	JP 2001583641	A	20010518	200375
			WO 2001NZ92	A	20010518	

Priority Applications (No Type Date): NZ 504621 A 20000518

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200187170 A1 E 23 A61B-017/24

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
CH CN CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS  
JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL  
PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200160840 A A61B-017/24 Based on patent WO 200187170

EP 1284663 A1 E A61B-017/24 Based on patent WO 200187170

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

US 20030164168 A1 A61M-016/00

JP 2003533266 W 32 A61B-017/00 Based on patent WO 200187170

Abstract (Basic): WO 200187170 A1

NOVELTY - The one-way valve (5) is held in an expandable frame (6)  
that also carries a skirt (3). The skirt has a series of projections  
(7) that act as anchors in the bronchial wall. The frame may be  
delivered in the end of an endoscope

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for

(a) An endoscopic procedure for lung collapse

(b) An endoscopic method for treatment of pneumothorax

Serial 10/613860

May 3, 2004

(c) An endoscopic method for producing hypoxic vasoconstriction  
 (d) An endoscopic procedure for lung volume reduction including a delivery tube

(e) An endoscopic procedure for removal of the one-way valve  
 USE - To produce the collapse of part of a lung e.g. in the treatment of tuberculosis or emphysema

ADVANTAGE - The procedure is relatively non-invasive and in-expensive method of treatment giving reduced mortality and morbidity in patients with limited reserves. Thus more seriously ill patients may be treated

DESCRIPTION OF DRAWING(S) - Section through the one-way valve

Skirt (3)

One-way valve (5)

Frame (6)

Anchors (7)

pp; 23 DwgNo 2/16

Derwent Class: P31; P34

International Patent Class (Main): A61B-017/00; A61B-017/24; A61M-016/00

International Patent Class (Additional): A61B-001/267; A61B-001/273

37/7,K/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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004640759

WPI Acc No: 1986-144102/198622

**Apparatus for bronchial intubation and separate lung ventilation - has tracheal and endo-bronchial tubes with seals to engage walls of internal organs**

Patent Assignee: NAZARI S (NAZA-I)

Inventor: NAZARI S

Number of Countries: 012 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 8602845	A	19860522	WO 85EP600	A	19851110	198622 B
EP 203124	A	19861203	EP 85905811	A	19851108	198649
US 4819664	A	19890411	US 88159426	A	19880217	198917
IT 1177217	B	19870826				199033
IT 1184567	B	19871028				199041
EP 203124	B	19910605				199123
DE 3583141	G	19910711				199129

Priority Applications (No Type Date): IT 8521025 A 19850605; IT 8423603 A 19841115

Cited Patents: CH 541332; EP 64701; FR 1505607; GB 1528279

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 8602845 A E 19

Designated States (National): JP US

Designated States (Regional): AT BE CH DE FR GB IT LU NL SE

EP 203124 A E

Designated States (Regional): DE FR GB

EP 203124 B

Designated States (Regional): DE FR GB

Abstract (Basic): WO 8602845 A

A tube (2) is insertable into the trachea of a patient. At least one endobronchial tube (6a) is insertable into the tracheal tube to reach one of the principal bronchi and define, with the tracheal tube,

an air passage. The tubes are connectible to an air supply and carry seals (16,18a) at their inserted ends, engageable with the internal walls of organs into which they are inserted.

Seals (25a) act between the two tubes toward the exterior, to prevent external communication with the air passage. The endobronchial tube and air passage have equal fluid dynamic resistances.

ADVANTAGE - Prevents flooding of lateral bronchus. (19pp

Dwg.No.4/8)

Abstract (Equivalent): EP 203124 B

A device for selective bronchial intubation and separate lung fluid media ventilation, comprising an elongated tracheal tube (2) adapted to be inserted into a human trachea and having a forward end, a rearward end and a length sufficient to allow the forward end of said tracheal tube to be positioned in the trachea at a location near the bifurcation of the trachea at a location near the bifurcation of the trachea into right and left main bronchi, said tracheal tube having an inner surface, the inner surface of said tube defining an internal cavity having an internal cavity dia. and extending lengthwise within said tracheal tube, first inflatable sealing means (16) mounted on the outer periphery of said tracheal tube near the forward end thereof, said first inflatable sealing means being adapted upon inflation sealing means being adapted upon inflation thereof to expand into substantial sealing contact with the inner surface of the trachea near the bifurcation thereof, an endobronchial tube (6a,6b) defining a first lumen for the fluid passage therethrough and having an external dia. which is smaller than said internal cavity dia., said endobronchial tube being adapted to be inserted into said internal cavity of said tracheal tube (2) for longitudinal sliding movement therein thereby defining in said internal cavity between the external periphery of said endobronchial tube and the internal periphery of the tracheal tube a second lumen (7) for the flow of fluid media therethrough, said endobronchial tube (6a,6b) having a forward extremity portion with a forward tip (13a,13b) and upon insertion into said tracheal tube extending beyond said forward end of said tracheal tube (2) outside thereof, a second inflatable sealing means (18a,18b) on said forward extremity portion, said second inflatable sealing means being adapted upon inflation

Abstract (Equivalent): US 4819664 A

The device comprises a tracheal tube insertable into the trachea of a patient, and an endobronchial tube, of greater length than the tracheal tube and being insertable into the tracheal tube for reaching, with one of its extremities, one of the principal bronchi. In this way the endobronchial tubes defines in cooperation with the tracheal tube a single air passage.

At their external ends, the tubes are connectable to an air supply and at their internal ends are provided with sealing members which can be actuated to form a seal with the internal walls of the organs where the tubes are inserted. There are also provided stoppers adapted to act between the two tubes, towards the exterior, to prevent external communication with the air passage.

ADVANTAGE - The air passage and the endobronchial tube have substantially equal fluid-dynamic resistances to obtain uniform ventilation of both lungs. (7pp)

Derwent Class: P31; P34

International Patent Class (Additional): A61B-000/00; A61M-015/00;

A61M-016/00 ; A61M-029/00

38/26, TI/1 (Item 1 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
016066346  
WPI Acc No: 2004-224197/200421

Improved drug delivery to patient's respiratory system comprises using aerosol delivery apparatus comprising medication dispenser with adapter having two coaxial tubes and inner coaxial tube in center of outer coaxial tube

38/26, TI/2 (Item 2 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
015949280  
WPI Acc No: 2004-107121/200411

Delivering aerosolized medication to respiratory system comprises intubating patient with endotracheal tube having main tube, main lumen, wall, and primary cannulation

38/26, TI/3 (Item 3 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
015522840  
WPI Acc No: 2003-584987/200355

Dry powder inhaler for delivery of medicament to respiratory tract, comprises circulation chamber, first supply channel, second air supply channels, discharge channel, and third air supply channel

38/26, TI/4 (Item 4 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
015474167  
WPI Acc No: 2003-536313/200351

Tube for trachea, consists of main body having two lumens with openings, tube length controller for adjusting tube protrusion in end, cuff on end of main body and cuff at tube protrusion partition wall

38/26, TI/6 (Item 6 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013640202  
WPI Acc No: 2001-124410/200114

Valve for compressed gas breathing appliance uses frusto-conical moving piston with air gap from cylinder wall and opening and closing the breathing gas supply controlled by lungs

38/26, TI/7 (Item 7 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013203281  
WPI Acc No: 2000-375154/200032

Respiratory assisting device for removal of fluid from lungs, has tubular air passages connecting mouthpiece and coupling chamber, through which audio signals and medical agent are applied

38/26, TI/8 (Item 8 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
012773995  
WPI Acc No: 1999-580222/199949  
Endotracheal tube for bronchial occlusion for use in medical and surgical procedure

38/26, TI/9 (Item 9 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
012590271  
WPI Acc No: 1999-396377/199934  
Low pressure medical trachea tube with reduced risk of infection by secretions

38/26, TI/10 (Item 10 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
012166459  
WPI Acc No: 1998-583371/199849  
Vibrating respirator for loosening phlegm and like in patient's lungs - has hollow housing with holed cap attached to breathing tube and base accommodating pulsed audio signal generator connected to loudspeaker.

38/26, TI/11 (Item 11 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
012104073  
WPI Acc No: 1998-520985/199844  
Endotracheal tube for ventilation of lungs - has incomplete posterior bevel extending toward, but not completely through. the anterior wall and a curved lip projecting inward of anterior wall

38/26, TI/12 (Item 12 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
010681987  
WPI Acc No: 1996-178942/199618  
Ventilation tube with evacuation sheath - has balloon cuff and evacuation device, and membrane positioned radially about ventilation tube

38/26, TI/13 (Item 13 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
010669404  
WPI Acc No: 1996-166358/199617  
Artificial tube of trachea for respiration - is made up of non collapsible and flexible nature material which is inserted between bronchial tubes of trachea

38/26, TI/14 (Item 14 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
010482767  
WPI Acc No: 1995-384087/199550

Therapy appliance for supporting breathing and expectoration of patient - produces oscillating air resistance using mouthpiece, hose, tube and interfitting recesses and protuberances

38/26, TI/15 (Item 15 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
010204453  
WPI Acc No: 1995-105707/199514

Endotracheal tube set for anaesthesia - has two lumens connected to machine by connector having outer element with pair of passages connected to tubes

38/26, TI/16 (Item 16 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
010159575  
WPI Acc No: 1995-060828/199508

Endotracheal tube with drug delivery lumen in wall - ending at proximal end of Murphy eye to split into streams passing to both lungs

38/26, TI/17 (Item 17 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
009748130  
WPI Acc No: 1994-027981/199404

Laryngeal mask with reflectance oximeter - has oximeter mounted to proximal side of laryngeal mask to face posterior wall of pharynx when mask forms sealed airway with laryngeal inlet

38/26, TI/18 (Item 18 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
009700360  
WPI Acc No: 1993-393913/199349

Endotracheal tube for breathing of patient during lungs operation - has longitudinal channel in tube wall, where wire with round cross-section is situated

38/26, TI/19 (Item 19 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
009465395  
WPI Acc No: 1993-158932/199319

Medical tube with injection lumen in wall - has one-way valves formed by angled slits through lumen wall to exterior

38/26, TI/20 (Item 20 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
009288078  
WPI Acc No: 1992-415489/199250

Nasal cannula partic. for oxygen supply - in which distal end is folded back to form frusto-conical skirt sealing on nostril

38/26, TI/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007498558

WPI Acc No: 1988-132491/198819

Endotracheal tube allowing medication delivery to lining of lungs - has  
ejection ring located at distal annular surface of hollow tube wall

38/26, TI/22 (Item 22 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

007087632

WPI Acc No: 1987-087629/198713

Tracheal tube for administering medication to lungs - with internal  
passages and axial ports, also bead at remote end

38/26, TI/23 (Item 23 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

004043174

WPI Acc No: 1984-188716/198430

Trachea cannula insertable through neck hole of patient - has box-like  
receptacle with breathing hole attached to open outer end of inner tube  
removably slidable in curved outer tube

38/26, TI/24 (Item 24 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

003237404

WPI Acc No: 1982-A0514J/198247

Endotracheal tube with movable endo-bronchial obturator - has tube  
cuff with small side channel for extendable catheter

38/26, TI/25 (Item 25 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

003029798

WPI Acc No: 1981-C9812D/198114

Artificial breathing device with open air duct - has regulating valve  
manually adjusted to required gas quantity and with outlet connected to  
duct by small bore tube

38/26, TI/26 (Item 1 from file: 347)

DIALOG(R)File 347:JAPIO

(c) 2004 JPO & JAPIO. All rts. reserv.

02779274

TRACHEAL TUBE HAVING DOUBLE CUFF

38/7, K/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

015380179 \*\*Image available\*\*

WPI Acc No: 2003-441120/200341

Flow control device for bronchial passageway comprises valve to regulate  
fluid flow through device, seal extending radially outward and forming  
seal with interior wall of bronchial passageway, and anchor

Patent Assignee: BARRETT M S (BARR-I); FIELDS A J, (FIEL-I); GIFFORD H S



Serial 10/613860

May 3, 2004

(GIFF-I); HENDRICKSEN M J (HEND-I); HUNDERTMARK R (HUND-I); MCCUTCHEON J G (MCCU-I); RAPACKI A R (RAPA-I); SUTTON D (SUTT-I); THOLFSEN D R (THOL-I); WILSON P M (WILS-I); EMPHASIS MEDICAL INC (EMPH-N)  
 Inventor: BARRETT M S; FIELDS A J; GIFFORD H S; HENDRICKSEN M J; HUNDERTMARK R; MCCUTCHEON J G; RAPACKI A R; SUTTON D; THOLFSEN D R; WILSON P M

Number of Countries: 101 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200330975	A2	20030417	WO 2002US32853	A	20021010	200341 B
US 20030070682	A1	20030417	US 2001329249	P	20011011	200341
			US 2001350106	P	20011019	
			US 2001338508	P	20011105	
			US 2002351084	P	20020122	
			US 2002371634	P	20020409	
			US 2002384247	P	20020528	
			US 2002270792	A	20021010	

Priority Applications (No Type Date): US 2002384247 P 20020528; US 2001329249 P 20011011; US 2001350106 P 20011019; US 2001338508 P 20011105; US 2002351084 P 20020122; US 2002371634 P 20020409; US 2002270792 A 20021010

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200330975 A2 E 163 A61M-016/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

US 20030070682 A1 A62B-009/06 Provisional application US 2001329249  
 Provisional application US 2001350106  
 Provisional application US 2001338508  
 Provisional application US 2002351084  
 Provisional application US 2002371634  
 Provisional application US 2002384247

Abstract (Basic): WO 200330975 A2

NOVELTY - Flow control device comprises a **valve** (612) to regulate fluid flow through the device, a **seal** (615) extending radially outward and forming a seal with the interior wall of a bronchial passageway when the flow control device is implanted in the passageway, and an anchor exerting a radial force against the interior wall when the device is implanted in the bronchial passageway.

DETAILED DESCRIPTION - Flow control device comprises a valve (612) to regulate fluid flow through the device, a seal (615) that at least partially surrounds the valve and which extends radially outward and forms a seal with the interior wall of the bronchial passageway when the flow control device is implanted in the bronchial passageway, and an anchor which is secured to the seal, exerts a radial force against the interior wall of the bronchial passageway when the flow control device is implanted in the bronchial passageway, and retains the flow control device in a fixed location in the bronchial passageway.

INDEPENDENT CLAIMS are also included for:

(a) a system for delivering a flow control device into a bronchial passageway, which comprises a catheter sized to be deployed to a target

location of a bronchial passageway through a trachea, a housing at or near the distal end of the catheter and defining an interior cavity that is sized to at least partially receive the flow control device, an ejection member movably positioned in the housing, and an actuation member attached to the catheter and mechanically coupled to the ejection member so that the actuation member can be actuated to cause the ejection member to move within the housing and eject a flow control device from the housing;

(b) a system for loading a flow control device onto a delivery catheter, which comprises a loader device having a loading tunnel sized to receive the flow control device, and a piston that slidably fits within the loading tunnel; and

(c) deploying a flow control device in a bronchial passageway, which comprises identifying a target location in a bronchial passageway to which the flow control device is deployed, positioning a delivery catheter having a flow control device loaded in it within the bronchial passageway so that the housing is positioned at the target location in the bronchial passageway and ejecting the flow control device from the housing to deploy the flow control device in the bronchial passageway.

USE - The flow control device is used in a bronchial passageway for regulating fluid flow to and from a region of a patient's **lung**. It is used in performing pulmonary procedures, particularly for treating **lung** diseases, e.g. **chronic obstructive pulmonary disease**.

ADVANTAGE - The flow control device provides for a desired fluid flow dynamic to a **lung** region during respiration and/or induces collapse in at least one **lung** region.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of a flow control device that can be implanted in a body passageway.

Valve (612)

Seal (615)

Flanges (620)

Cuff (622)

pp; 163 DwgNo 5A/64

Derwent Class: A96; B07; P34

International Patent Class (Main): **A61M-016/00** ; A62B-009/06

File 348:EUROPEAN PATENTS 1978-2004/Apr W04

File 349:PCT FULLTEXT 1979-2002/UB=20040415,UT=20040408

Set	Items	Description
S1	756384	TUBE OR TUBES OR TUBING OR CONDUIT? ? OR TUBUL? OR CATHETE- R? ? OR PIPET??? OR DUCT? ? OR CANNULA? ? OR CHANNEL? ? OR PI- PE OR PIPES OR PIPING
S2	232998	TRAP OR TRAPS OR CONTAINER? ? OR (CONTAINMENT OR DRAINAGE) - ( ) (VESSEL? ? OR DEVICE? ?)
S3	516852	FILTER? ? OR FILTRATION OR VALVE? ?
S4	71308	CHEST OR THORACIC OR LUNG
S5	415125	VISCERAL OR WALL OR WALLS
S6	497	(PULMONARY OR LUNG OR OXYGEN OR O2) (1W) THERAPY
S7	1025	ATELECTASIS OR MIDDLE( ) LOBE( ) SYNDROME OR BRONCHIECTASIS OR TRAPPED( ) AIR(2N) LUNG? ?
S8	57	DRAINAGE( ) COLLECTION
S9	201049	OXYGEN OR O2
S10	12857	IMPLANTABLE
S11	12110	COLLATERAL( ) VENTILATION OR AIRWAY( ) RESISTANCE OR EMPHYSEMA? OR HYPERINFLAT??? (2N) LUNG? ? OR CRICOTHYROID? OR HYPOXIA OR - HYPOXEMI? ? OR HYPOXAEMI? ? OR COPD OR CHRONIC( ) OBSTRUCTIVE( ) - PULMONARY( ) DISEASE OR CHRONIC( ) LUNG( ) DISEASE OR CHRONI...
S12	32556	IC=A61M
S13	1793	S1(S) S2(S) S3/TI, AB
S14	62	S13 AND (S4 OR S6 OR S7 OR S11)
S15	7	S13(S) (S4 OR S6 OR S7 OR S11)
S16	9705	S1(S) (S4 OR S6 OR S7 OR S11)
S17	548	S4(5N) S5(S) S16
S18	8	S17/TI, DE, AB
S19	8	S18 NOT S15
S20	2	S13 AND S6
S21	0	S20 NOT (S15 OR S18)
S22	120	S1(S) S6
S23	16	S22(S) S4(S) S5
S24	15	S23 NOT (S15 OR S18) [1 duplicate; 14 not relevant]
S25	50	S22 AND S12
S26	61	S22(S) S4
S27	14	S26 AND S12
S28	12	S27 NOT (S15 OR S18 OR S23)
S29	17	COLLATERAL( ) VENTILATION
S30	15	S29 NOT (S15 OR S18 OR S23 OR S27)

15/6/2 (Item 2 from file: 348)

01220747

Vacuum adjustment valve

15/6/7 (Item 4 from file: 349)

00256052 \*\*Image available\*\*

NEBULIZER APPARATUS FOR HIGH-HUMIDITY OXYGEN THERAPY

15/3, AB, K/3 (Item 3 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

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01138619

Disposable thoracic drainage device connectable to an aspiration unit  
Einwegvorrichtung fur eine Thorax-Drainage anschliessbar an eine  
Saugereinheit

**Dispositif de drainage thoracique jetable, raccordable a une unite de  
suction**

**PATENT ASSIGNEE:**

Gibertoni, Lucio, (2861080), Via Curtatone 41, 41037 Mirandola (Modena),  
(IT), (Applicant designated States: all)

**INVENTOR:**

Gibertoni, Lucio, Via Curtatone 41, 41037 Mirandola (Modena), (IT)

**LEGAL REPRESENTATIVE:**

Modiano, Guido, Dr.-Ing. et al (40782), Modiano & Associati SpA Via  
Meravigli, 16, 20123 Milano, (IT)

PATENT (CC, No, Kind, Date): EP 993833 A2 000419 (Basic)  
EP 993833 A3 001018

APPLICATION (CC, No, Date): EP 99119937 991011;

PRIORITY (CC, No, Date): IT 98MI2213 981014

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: A61M-001/00; A61M-027/00

ABSTRACT EP 993833 A2

A disposable **thoracic drainage device** connectable to an  
aspiration unit, comprising a **container** body (1) internally forming at  
least one chamber for collecting the drainage liquid which is connected  
to an inlet (50) for connection to a patient and to a water-head suction  
adjustment **valve** (10). The water-head suction adjustment **valve** (10)  
has a first water head section (20) and a second water head section (28)  
which are side by side and mutually series-connected by a connecting  
**duct** (26).

ABSTRACT WORD COUNT: 80

NOTE: Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

**FULLTEXT AVAILABILITY:**

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200016	515
SPEC A	(English)	200016	1347
Total word count - document A			1862
Total word count - document B			0
Total word count - documents A + B			1862

19/6/1 (Item 1 from file: 348)

00599050

**Flexible endoscopic surgical port**

19/6/7 (Item 5 from file: 349)

00342596 \*\*Image available\*\*

**METHOD AND APPARATUS FOR TREATING EDEMA AND OTHER SWELLING DISORDERS**

19/6/8 (Item 6 from file: 349)

00309375

**AN INTRATHORACIC MECHANICAL, ELECTRICAL AND TEMPERATURE ADJUNCT TO  
CARDIOPULMONARY CEREBRAL RESUSCITATION, SHOCK, HEAD INJURY, HYPOTHERMIA  
AND HYPERTHERMIA**

19/3,AB,K/6 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00437414

A PROSTHESIS FOR THORACOSTOMY AND METHOD FOR ITS IMPLANTATION  
PROTHESE POUR THORACOSTOMIE ET PROCEDE D'IMPLANTATION DE LADITE PROTHESE

Patent Applicant/Assignee:

FUNDACAO E J ZERBINI,  
TARCISIO BRITO FILOMENO Luiz,  
TAEKO TANAKA OYAMA Helena,  
JUNKO SHIOTSU MAIZATO Marina,

Inventor(s):

TARCISIO BRITO FILOMENO Luiz,  
TAEKO TANAKA OYAMA Helena,  
JUNKO SHIOTSU MAIZATO Marina,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9827878 A1 19980702

Application: WO 96BR70 19961220 (PCT/WO BR9600070)

Priority Application: WO 96BR70 19961220

Designated States: JP US AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 3307

English Abstract

A Prosthesis for thoracostomy and method for its implantation, said prosthesis comprising a **tubular** body (10) preferably made of silicone, to be introduced in an opening made in the **thoracic** cage of a patient. An end of the **tubular** body (10) incorporates an edge portion (11) to be seated internally to the **wall** of the **thoracic** cage, the **tubular** body (10) being provided along its length with a plurality of external superficial accidents (12), axially and equally spaced relative to each other, and between which is relatively fixed and axially retained a retaining means (20) which is externally seated onto the **wall** of the **thoracic** cage.

28/6/1 (Item 1 from file: 348)

00828179

PNEUMATICALLY-OPERATED GAS DEMAND APPARATUS

28/6/5 (Item 2 from file: 349)

00957738 \*\*Image available\*\*

IMPROVED METHOD OF MAINTAINING CONSTANT ARTERIAL PCO<sub>2</sub> DURING INCREASED MINUTE VENTILATION AND MEASUREMENT OF ANATOMIC AND ALVEOLAR DEAD SPACE

28/6/6 (Item 3 from file: 349)

00788004 \*\*Image available\*\*

SUPPLY VALVE AND DIAPHRAGM FOR A PNEUMATICALLY-OPERATED GAS DEMAND APPARATUS

28/6/7 (Item 4 from file: 349)

00788002 \*\*Image available\*\*

PNEUMATICALLY-OPERATED GAS DEMAND APPARATUS

28/6/8 (Item 5 from file: 349)

00435200 \*\*Image available\*\*

METHOD AND APPARATUS FOR PROVIDING VENTILATORY SUPPORT TO A PATIENT

28/6/9 (Item 6 from file: 349)

00416940 \*\*Image available\*\*

VENTILATOR SYSTEM

28/6/10 (Item 7 from file: 349)  
00357822  
PNEUMATICALLY-OPERATED GAS DEMAND APPARATUS

28/3,AB,K/2 (Item 2 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00333851

TRANSTRACHEAL CATHETER SYSTEM.  
TRANSTRACHEALES KATHETERSYSTEM.  
SYSTEME DE CATHETER TRANSTRACHEAL.

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PATENT (CC, No, Kind, Date): EP 381698 A1 900816 (Basic)

EP 381698 A1 910130

EP 381698 B1 940209

WO 8902761 890406

APPLICATION (CC, No, Date): EP 88909441 880926; WO 88US3335 880926

PRIORITY (CC, No, Date): US 101172 870928

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61M-016/00

NOTE: No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	1459
CLAIMS B	(German)	EPBBF1	1343
CLAIMS B	(French)	EPBBF1	1498
SPEC B	(English)	EPBBF1	10326

Total word count - document A 0

Total word count - document B 14626

Total word count - documents A + B 14626

INTERNATIONAL PATENT CLASS: A61M-016/00

...SPECIFICATION B1

This invention pertains to a system for supplemental transtracheal oxygen therapy including transtracheal catheter devices for providing transtracheal, oxygen delivery for spontaneously breathing patients with chronic lung disease and to methods for catheter placement and use. Such devices are medically desirable therapy for patients having a chronic need for oxygen where a catheter can be installed on an out-patient basis for permanent use.

As a result of...

28/3,AB,K/3 (Item 3 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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Serial 10/613860

May 3, 2004

00195778

**TRANSTRACHEAL CATHETER SYSTEM.****TRANSTRACHEALKATHETERANORDNUNG.****CATHETER TRANSTRACHEAL.****PATENT ASSIGNEE:**

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PATENT (CC, No, Kind, Date): EP 207099 A1 870107 (Basic)

EP 207099 A1 870311

EP 207099 B1 910724

WO 8603127 860605

APPLICATION (CC, No, Date): EP 85906119 851119; WO 85US2282 851119

PRIORITY (CC, No, Date): US 673912 841121; US 788817 851018

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: **A61M-016/00**

NOTE: No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

**FULLTEXT AVAILABILITY:**

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	635
CLAIMS B	(German)	EPBBF1	605
CLAIMS B	(French)	EPBBF1	635
SPEC B	(English)	EPBBF1	8769

Total word count - document A 0

Total word count - document B 10644

Total word count - documents A + B 10644

**...SPECIFICATION Background of the Invention****Technical Field:**

This invention pertains to a system for supplemental transtracheal **oxygen therapy** including transtracheal **catheter** devices for providing transtracheal oxygen to spontaneously breathing patients with chronic **lung** disease. Such devices are medically desirable therapy for patients having a chronic need for oxygen where a **catheter** can be installed on a semi-permanent out patient basis.

As a result of studies...

...a patient who is not breathing spontaneously and are not intended for the long-term **oxygen** supplementation **therapy** for chronic **lung** disease. Typically, such devices are installed by puncturing the skin to create a hole through the cricoid thyroid membrane above the trachea through which a relatively large curved tracheotomy **tube** is inserted. As previously described, the use of such **tubes** has been restricted medically to emergency situations where the patient would otherwise suffocate due to the blockage of the airway. Such emergency tracheotomy **tubes** are not intended for long-term **oxygen** supplementation **therapy**

after the airway blockage is removed.  
Other devices which have been found satisfactory for emergency...

30/6/1 (Item 1 from file: 348)

01710246

Methods and devices for creating collateral channels in the lungs

30/6/2 (Item 2 from file: 348)

01349406

Methods and devices for creating collateral channels in the lungs

30/6/3 (Item 3 from file: 348)

01266055

METHODS AND DEVICES FOR CREATING COLLATERAL CHANNELS IN THE LUNGS

30/6/4 (Item 1 from file: 349)

01075360 \*\*Image available\*\*

METHOD AND DEVICES FOR MAINTAINING PATENCY OF SURGICALLY CREATED CHANNELS  
IN TISSUE

30/6/5 (Item 2 from file: 349)

01068825 \*\*Image available\*\*

CONDUITS FOR MAINTAINING OPENINGS IN TISSUE

30/6/6 (Item 3 from file: 349)

01060498

DEVICES FOR MAINTAINING SURGICALLY CREATED OPENINGS

30/6/11 (Item 8 from file: 349)

00992056 \*\*Image available\*\*

CONDUITS HAVING DISTAL CAGE STRUCTURE FOR MAINTAINING COLLATERAL CHANNELS  
IN TISSUE AND RELATED METHODS

30/6/12 (Item 9 from file: 349)

00937677 \*\*Image available\*\*

DEVICES FOR CREATING COLLATERAL CHANNELS

30/6/13 (Item 10 from file: 349)

00931844 \*\*Image available\*\*

DEVICES FOR CREATING COLLATERAL CHANNELS

30/6/14 (Item 11 from file: 349)

00930374 \*\*Image available\*\*

DEVICES FOR CREATING COLLATERAL CHANNELS

30/6/15 (Item 12 from file: 349)

00778406

METHODS AND DEVICES FOR CREATING COLLATERAL CHANNELS IN THE LUNGS

30/3,AB,K/7 (Item 4 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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01047591

METHODS AND DEVICES FOR INDUCING COLLAPSE IN LUNG REGIONS FED BY COLLATERAL  
PATHWAYS



**METHODES ET DISPOSITIFS SERVANT A PRODUIRE UN AFFAISSEMENT DANS DES REGIONS  
DES POUMONS ALIMENTEES PAR DES VOIES COLLATERALES**

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**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200375796 A2 20030918 (WO 0375796)

Application: WO 2003US7230 20030306 (PCT/WO US0307230)

Priority Application: US 2002363328 20020308

**Parent Application/Grant:**

Related by Continuation to: US 2002363328 20020308 (CIP)

**Designated States:** AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU

CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP

KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT

RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

(EA) AM AZ BY KG KZ MD RU TJ TM

**Publication Language:** English

**Filing Language:** English

Fulltext Word Count: 15938

**English Abstract**

Fulltext Availability: Detailed Description

**Detailed Description**

... gas and a helium detector, is disclosed in the literature. See,  
Morrell NW, et al. **Collateral Ventilation** and Gas Exchange  
in Emphysema, Am J Respir Crit Care Med 1994;150:635...